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ON

THE FUNCTIONS OF THE BRAIN

AND

OF EACH OF ITS PARTS:

WITH

OBSERVATIONS ON THE POSSIBILITY OF DETERMINING THE INSTINCTS, PROPENSITIES, AND TALENTS, OR THE MORAL AND INTELLECTUAL DISPOSITIONS OF MEN AND ANIMALS, BY THE CONFIGURATION OF THE BRAIN AND HEAD.

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Ad. Smith Jr.

ORGANOLOGY;

OR,

AN EXPOSITION

OF THE

INSTINCTS, PROPENSITIES, SENTIMENTS, AND TALENTS.

OR OF THE

MORAL QUALITIES, AND THE FUNDAMENTAL INTELLECTUAL FACULTIES

IN MAN AND ANIMALS,

AND THE SEAT OF THEIR ORGANS.

By FRANÇOIS JOSEPH GALL, M. D.

TRANSLATED FROM THE FRENCH

By WINSLOW LEWIS, Jr., M. D., M. M. S. S.

IN SIX VOLUMES.

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OF THE FUNCTIONS OF THE BRAIN,

AND THOSE OF EACH OF ITS PARTS.

IV. Instinct of Self-defence and of Property; Disposition to quarrel; Courage.

In certain cases, it is much easier to discover the organ which determines a certain mode of action, than the fundamental quality or faculty itself. Actions that are the result of the extraordinary activity of an organ, are much more obvious than the primitive destination of that organ, and its ordinary mode of action. For this reason, I at first observed almost all the organs, and all the faculties, in their excessive activity. When faculties are once recognized as peculiar and independent, it is possible thence to infer by degrees, the primitive destination of an organ. The history of the discovery of the instinct of self-defence, and of property, and of its organ, will be better understood by the reader from the following observations.

History of the discovery.

Uncertain whether I should find, in the language, suitable expressions to designate all the fundamental qualities and faculties, I was curious to ascertain what faculties and qualities had attracted popular notice by their outward manifestations. I therefore collected in my house, quite a number of individuals of the lower classes of society, following different occupations, such as coachmen, servants, &c. I obtained their confidence, and disposed them to sincerity, by giving them beer, wine, and money, and when favorably inclined, I got them to tell me of each other's good and bad qualities, and in short, of all their most striking characteristics.

In their different communications, they seemed to particularly notice those who were always provoking disputes and quarrels. Individuals of peaceable habits they knew very well, speaking of them with contempt, and calling them poltroons. As the most quarrelsome found great pleasure in giving me circumstantial narratives of their exploits, I was anxious to see whether any thing was to be found in the heads of these *bravos*, which distinguished them from those of the poltroons. I ranged the quarrelsome on one side, and the peaceable on the other, and examined carefully the heads of both. I found that in all the former, the head, immediately behind and on a level with the top of the ears, was much broader than in the latter. On another occasion, I assembled separately those who were most distinguished for their bravery, and those most distinguished for their cowardice. I repeated my researches, and found my first observations confirmed. It was impossible for me to be deceived by the false ideas of philosophers, on the origin of our qualities and faculties. In the individuals I had to deal with, education was entirely out of the question, and the manner in which their character was manifested, could not be attributed to the influence of external circumstances. Such men are the

children of nature, yielding themselves unreservedly to their dispositions, and all their actions bearing the imprint of their organization.

I therefore began to conjecture, that the disposition to quarrel might really be the result of a particular organ. I endeavored to find out, on the one hand, men of acknowledged superior bravery, and on the other, men known to be great cowards. At the combats of wild beasts, at that time still exhibited in Vienna, there often appeared a first-rate fighter of extreme intrepidity, who presented himself in the arena, to sustain alone a fight with a wild boar, or a bull, or any ferocious animal whatever. I found in him the region of the head just pointed out, very broad and rounded. I took a cast of this head, and likewise those of some other *bravos*, that I might run no risk of forgetting their particular conformations. I examined also the heads of some of my comrades, who had been expelled from several universities for duel-fighting. One of them knew no greater pleasure than that of sitting down in an ale-house, and mocking the workmen who came thither to drink; and when he saw them disposed to come to blows, putting out the lights; and giving them battle in the dark, chair in hand. He was, in appearance, a small and feeble man. He reminded me of another of my comrades, a Swiss, who used to amuse himself at Strasburg, by provoking quarrels with men much larger and stronger than himself. I visited several schools, and had pointed out to me the scholars, who were the most quarrelsome, and those who were the most cowardly, and I prosecuted the same observations in the families of my acquaintance. In the course of my researches, my attention was arrested by a very handsome young woman, who, from her childhood, had been fond of dressing herself in male attire, and going secretly out of doors to fight with the blackguards in the streets. After her marriage she constantly sought occasion to fight with men. When she had guests at dinner, she challenged the strongest of them after the repast to wrestle. I likewise knew a lady, who, although of small stature, and delicate constitu-

tion, was often summoned before a justice, because of her custom of striking her domestics of both sexes. When she was on a journey, two drunken waggoners, having lost their way in the inn during the night, entered the chamber, where she was sleeping alone; she received them so vigorously with the candlestick, which she hurled at their heads, and the chairs with which she struck, that they were forced to betake themselves to flight. In all these persons, I found the region in question, formed in the manner above described, although the heads in other respects were formed quite differently. These observations emboldened me, and I began thenceforward to speak in my lectures of an organ of courage, as I then called it.

There soon after died a general, whose whole reputation was founded on his courage and love of fighting. I found in his head (Pl. lxiii, the organ v,) shaped as it is in the first-rate fighter at Vienna, spoken of above. My entire conviction was finally achieved by the cranium of the poet Alxinger, who was so destitute of courage, that his cowardice exposed him to considerable raillery. Comparing his cranium with the preceding, (lxii.) what a difference in the development of the region V. The general's cranium, besides being very broad immediately behind the ears, also presents a round protuberance an inch in breadth. Alxinger's cranium, on the contrary, is not only very narrow in this place, but entirely flattened.

Natural History of Courage, or the Instinct of Self-defence and of Property.

In relating the natural history of this instinct, I shall combat some prejudices, that are generally received on the subject of the courage of animals.

Certain animals are charged with wanting courage, for manifesting fear when attacked by superior force, as if temerity instead of true courage, were the desired quality. Among the carnivorous animals, the dog is,

without contradiction, one of the most courageous. Before having experienced the superiority of the lion, tiger, and bison, he attacks them without hesitation, but let him once escape from the unequal combat, which exposes him to almost certain death, and he ever after flies at the approach of these terrific creatures. The wild-boar alone never learns to calculate his strength. The hare, pigeon, &c. are said to be timid; but hares, when they fight together, will frequently tear off whole strips of skin, and sometimes dismember one another. Observe two pigeons fighting, male against male, or female against female, and you will see them striking their wings together, struggling, and picking most furiously at each other with their bills. What creature is more valiant than the cock, yet he flies before the martin.

It is generally admitted that the carnivorous have much more courage than the frugivorous animals, but I shall try hard to prove the contrary. Hunters are perfectly aware that the wolf, unless excited by hunger, takes flight at the approach of the slightest danger. That powerful animal, the tiger, with the serpent's flexibility, and with incredible strength, armed too with teeth and claws, whose unexpected attack nothing can resist, cannot sustain his courage. The moment a herd of buffaloes observes him coming stealthily along, the old bull, the father of the family, comes forward, engages him in combat, and generally is the victor. In the arena of the combats of wild beasts at Vienna, a deer was once destined to be torn in pieces by a lioness; but the moment he saw the latter leave its lodge, to advance upon him, he put himself on his guard. The lioness walked around him slowly, when the deer, the moment he saw her intention, leaped upon her back, and beat her ribs vigorously with his feet, insomuch that they had considerable difficulty in getting the lioness back to her lodge, where she died three weeks afterwards. Shortly after a roe-buck was pitted against a lion. The former sprang with a sort of desperate courage on his adversary, but the disparity of strength and arms was such, that the

poor creature succumbed without the power of offering any further resistance. I have often seen a he-goat crush many a dog with his horns, and she-goats even defend themselves heroically against the dogs. Every body knows the courage of the chamois and the wild-goat, to which the hunter is often a victim; and who does not know the boldness of the squirrel, as well as the courage and mischievous daring of the rat? If beasts of prey, armed as they are, with claws and teeth, were also endowed with courage even to rashness, nothing could resist them. But, ordinarily, nothing less than hunger will induce them to risk a bold stroke.

These observations prove, that the instinct of self-defence is common to all animals; but it is not equally active in all species. Certain species live in peace and in society; while others, on the contrary, not content with repelling attacks, maintain constant war with their own and other species. Hence the difference between the manners of the sheep, horse, pigeon, tomtit, &c. and those of the morse, cock, cape-petrel, most of the fly-catchers, such as the red-throat, wren, &c. Many species of birds are even furnished with special weapons, such as spurs, &c.

The individuals of all species differ in regard to courage, according as the organ of self-defence and of property, is more or less developed. There are large and small dogs that avoid all fighting; while others think of nothing else, and will boldly attack the furious bull, and the wild boar foaming with rage. There are rams, he-goats, bulls, cows, pigeons, thistle-finches, who are continually fighting, either with animals of their own, or other species, and who attack and bite every thing they meet with.

Certain carnivorous birds, such as the *Falco pygargus*, *F. veruginosus*, *F. tinnunculus*, the *Lanius collurio*, as well as all the species of that genus, the *Tringa pugnax*, and *Larus cataractes*, are courageous and very quarrelsome. The *Falco Milvus*, on the contrary, is so timid, as to take flight, when attacked by a few crows, or even rooks. Among the little gnawers, none equals the

hamster for courage, even to rashness, while the guinea-pig of the same size, is very peaceful and timid.

Such a difference of manners cannot be attributed to education; and it can only be explained upon the ground of an innate disposition, and consequently an innate organization. No one will maintain that it is ambition, cupidity, or fear of punishment, which inspires these creatures with courage, and impel them to fight. The first-rate fighter of Vienna, already mentioned, as well as those of Paris, have often assured me, that it is impossible to train for fighting, a dog that is cowardly by nature, such as the greyhound. It may happen, indeed, that a young inexperienced dog, like a conscript, at first manifests fear; but the moment he is a little familiarized with danger, he is a ready-made fighter. I once owned a Danish dog, which, except myself and a little bitch, that was always with her, received with a growl every thing that approached him, and rushed upon it with fury. He had this habit from his youth, and neither caresses nor threats could break him of it. This dog never manifested the least instinct for the chase, and birds and mice might run round him without exciting his attention. A shaggy water-dog, a favorite of his master, who fed him well, was constantly seeking opportunities to fight in the streets, and every day he returned with new wounds. They tried shutting him up for weeks together, but the moment he was set loose, he sprang upon the first dog he met, and fought till he conquered him, or was obliged to quit himself. A wren in my aviary, masters all the other birds, who fear him, even the greenfinch, the gnat-snapper, and the turtle-doves. He attacks them with astonishing rapidity, and fights with the most obstinate courage. A white rabbit assumed the sole duty for two years of defending the tribe against the cats. He was constantly in a turmoil, and the moment a cat approached, he leaped upon him furiously, beating the ground with his feet. In barn-yards we always find some cock more valorous and quarrelsome than the rest. When a flock of wild beasts is menaced with danger, the most

intrepid are always found at their head; and the herds of bisons and wild horses are always led by the boldest males.

The same differences are observed in the human species, as the facts already related sufficiently prove. Daily experience concurs with the results of history, in showing, that the disposition to quarrel and fight is often manifested at the most tender age, without the stimulus of example, and in spite of the education whose object is to repress it. Every one, who has been educated in a large family, or in public seminaries, must have encountered young people of this character.

Bertrand du Guesclin, constable of France, thought of nothing but fighting, from early childhood. He formed a regiment of children of his own age, and was styled general, and dividing them into companies, taught them how to form the line of battle. "There is not a worse little wretch in the world," said his mother; "he always has some bruise, or a bloody nose; always beating, or being beat; he appropriates every thing he observes of a military nature."

I need not be told, that every soldier in an army displays the same courage; that it can be excited at pleasure in the raw recruit. I am well aware, that the actions of man are much less the result of a single quality or faculty—the effect of a single organ—than those of the lower animals. I know also that an organ, which, in its ordinary state, acts but feebly, may be excited to much higher activity by strong drinks, warlike music, the hope of distinction, the love of glory, and by the very necessity of escaping from imminent danger; but it is no less true, that in the bravest regiments, we meet with some soldiers more intrepid and rash than the rest. Wherever men are assembled together, there will always be found some disturbers of the peace, some quarrellers, who strive to gratify their passion, even at the expense of honor and duty. Savans, who are forever engaged in some little controversy, and impassioned pleaders, probably have this organ largely developed.

Derangement of the disposition to quarrel.

The phenomena of this instinct in disease, particularly mental derangement, also prove that it should be considered as a fundamental quality. There are individuals, who, when they have drank too much, or are suffering under some kind of irritation, such for example as that of cerebral inflammation, or that produced by certain poisons, become quarrelsome, while others in the same circumstances, are rather disposed to enjoy the pleasures of love, or perpetrate some kind of trickery. Recollect the case of the man who, all his life, was of a mild and peaceful disposition, till cured of a wound he had received on his head from a stone, when he became quarrelsome and inclined to fight.*

We have seen that the instinct of propagation and that of offspring, may degenerate into monomania. The same thing may happen to all the fundamental qualities and faculties, and very frequently does to the instinct of self-defence. I will cite a few cases from Pinel.

"A maniac of a mild and peaceable disposition, seemed, during his paroxysms, to be inspired by a demon of malice. He was then incessantly in mischief; shutting up his companions in their cells, teasing, striking and throwing among them some bone of contention to set them by the ears. Another example of this kind is worth relating; that of a person affected with a periodical insanity of the most inveterate description. The paroxysms ordinarily occurred once a month, and continued from eight to ten days, presenting the most striking contrast to his natural condition. During the lucid intervals, his countenance was calm, his aspect mild and reserved, his answers to questions, modest and highly judicious, and his manners urbane; his conduct

* Vol. ii. p. 202.

evinced strict probity, and even a desire to oblige others, and he expressed the most ardent wishes for his recovery. On the recurrence of the paroxysm, however, which was accompanied by a certain flush of the face, excessive heat in the head, and a parching thirst, his motions were rapid, the tone of his voice loud and arrogant, his looks full of audacity, and he felt the most powerful inclination to teaze every one who came near him, and provoke them to fight, as long as breath remained in their body."*

"Ought we not to refer to mania without delirium, (the hallucination of the English writers corresponds to the delirium of the French,) those turbulent, cross-grained characters, who manifest no alienation in other respects, and whom, they have preferred to seclude in lunatic asylums, rather than mix them up with criminals in jails and prisons. An old religieuse at the Salpêtrière was a striking example of this kind. Whenever a servant-girl approaches her to offer any service, she showered upon her the most outrageous and opprobrious epithets. The other insane were treated with no more respect, and menacing cries, transports of rage, and efforts to strike every thing around her, followed one another without cessation. When her food was brought to her at meal-times, she either indignantly threw it away, or concealed it, and then complained that they were trying to starve her to death. She delighted in throwing her clothes into the fire, and then crying out that she had nothing to wear, and was suffered to go naked. She never ventured to brave the authority of the overseer when he was present, but when absent, he was continually the object of her sarcasm. Such a firebrand of tumult and discord being dangerous to the welfare of the other inmates, it was necessary to confine her in a solitary cell, to which the outbreakings of her wild and savage spirit were afterwards limited." †

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* Sur l'aliénation mentale, p. 101. † Pinel, l. c. 280.

"An only son of a weak and indulgent mother was encouraged in the gratification of every caprice and passion, of which an untutored and violent temper was susceptible. The impetuosity of his disposition increased with his years. The money, with which he was lavishly supplied, removed every obstacle to the indulgence of his wild desires. Every instance of opposition or resistance roused him to acts of fury. He assaulted his adversaries with the audacity of a savage; sought to reign by force, and was perpetually embroiled in disputes and quarrels. If a dog, a horse, a sheep, or any other animal offended him, he instantly put it to death. If he ever went to a fête or any other public meeting, he was sure to excite such tumults and quarrels as terminated in actual pugilistic rencontres, and he generally left the scene with a bloody nose. This wayward youth when unmoved by passions, possessed a perfectly sound judgment. When he became of age, he succeeded to the possession of an extensive estate. He proved himself fully competent to the management of it, as well as to the discharge of his relative duties, and was even distinguished for acts of beneficence and compassion. Wounds, law-suits, and pecuniary compensations were generally the consequence of his unhappy disposition to quarrel. But an act of notoriety put an end to his career of violence. Enraged with a woman, who had used offensive language to him, he pushed her into a well. Prosecutions commenced against him, and on the deposition of a great many witnesses who testified to his furious deportment, he was condemned to perpetual confinement in the Bicêtre."*

On the subject of such cases, which are but too frequent, Pinel observes, that "daily experience shows the necessity of having seven or eight cells in a remote part of the hospital, where those inmates, who are not furious, but extremely turbulent and intractable, may be kept for

* Pinel, l. c. 156.

a certain time in a state of seclusion. Among these, may be ranked those who are not subjected to the general rules of labor, and are but little affected by the ordinary means of reform, but who are constantly in mischief, teazing the other inmates, and exciting among them some subject of contention."*

These cases show, conclusively, that the instinct of self-defence may be irritated to excess, independently of all other qualities and faculties, so as to be converted into monomania—a phenomenon that would be impossible, if this instinct had not a particular and independent organ.

Fundamental quality of the disposition to quarrel and fight.

The reader is already aware, that it was impossible for me to discover any fundamental power in its primitive destination; and that at first, my attention has been always fixed on the extraordinary manifestation of a quality or faculty, and consequently on the result of an extreme development of an organ. The highest degree of action, of which an organ is susceptible, is nothing but a gradation of the fundamental power, but not this fundamental power itself. The fundamental quality or faculty is common to all the individuals of the species; but the degrees of manifestation vary from one individual to another, according as the organ is more or less developed. Setting aside all accidental modification, and attending only to that condition of this quality, which is common to all individuals, we shall arrive at the fundamental quality or faculty. As much must here be left to the sagacity of each individual, who makes it a subject of attention, there will always remain a great diversity of opinion, even among organologists,

* Pinel, l. c. p. 291.

as to the denomination of the fundamental qualities or faculties.

The instinct which disposes to quarreling and fighting, may be referred, in all its modifications and degrees, it seems to me, to the instinct of the defence of self and property. As soon as the necessity exists, in man or brute, of providing for self-preservation, for having a habitation, a male or female, children, or young, or property of any description, they must be also provided with a quality, which will prompt them to defend it against external violence. The preservation of the individual alone, even renders the existence of this instinct indispensable. Thus far, however, we have seen nothing of the disposition to quarrel and fight. This supposes a higher degree of activity of the fundamental quality—of the instinct of the defence of self and of property, whose organ is capable of different degrees of development. The individual who, with a moderate development of this organ, merely defends himself and property, will commence an attack, the very moment the organ becomes more developed, or more strongly excited. As this development or excitation increases, the disposition to quarrel becomes stronger, till it degenerates into a fixed desire, a necessity, a passion. Quarrels and battles are sought for, dangers are loved, perils confronted, and even created. Here then is a desire, a passion, which has nothing in common with that of the amative instinct, or the love of offspring, or of attachment, and which has its seat in the brain. If we call the fundamental quality, in consequence of this excitation, or excessive development, the disposition or passion for quarreling and fighting, we should be guilty of no less an error, than if we derived the name of the instinct of propagation, from the most depraved tastes into which it may degenerate.

As every different degree of development of this organ will always exist, so will there always be men and brutes, whose supreme enjoyment consists in dissension, quarreling, and fighting. So long as man exists, so long will there be disputes, quarrels, and wars.

Of the seat of the organ of the Defence of Self and Property.

I have already remarked, that in all courageous, rash, fight-loving people, there is a round protuberance behind and above the ears. Its situation on the cranium is at the posterior-inferior angle of the parietal bones. When no such protuberance is found in people of this disposition, we shall, instead thereof, find the distance between the corresponding organs much greater than in timid people. In man, the organ is situated nearly an inch behind the ear, and on a level with its superior margin. We must take care not to mistake for it, the mastoid process, which is a little lower down, and directly behind the ear.

My observation is confirmed by the heads of all who have been distinguished for courage; of robbers, who have committed theft, accompanied by violence and danger, in preference to simple larceny; and of all those who, for accomplishing perilous enterprises, snatch the reward from others who conceived the project, but wanted the requisite spirit and daring to execute it themselves. All soldiers distinguished for valor, so far as I have had opportunity to examine, have this organ very large. I have also found it very prominent in highway robbers, &c., notorious for their intrepidity. I am indebted to the politeness of Baron Larrey for the cranium of a soldier of the guard, who was singularly fond of fighting; he had killed several in duels, and finally died of a stab in his abdomen. The diameter of this skull, from the posterior-inferior angle of one parietal bone to that of the other, is very great. It is still more so in the head of Bouhours, who was guillotined several years ago, for murdering a number of people with a hammer. In Prof. Blumenbach's collection, we saw two crania, one of a young man, the other of a woman, in both of which the organ in question, was very little developed.

Otto Fabricius relates, that the race to which these crania belong, is a very cowardly one, and their character, as given by David Kranz, is in perfect conformity with their organization.

Certain savage races seem to have a confused notion of some advantage in great breadth of this region of the head, and are in the habit of endeavoring, by means of pressure, to increase the breadth of their children's heads between the ears, in the belief that they will thereby become better fitted for war.

In the lower animals, the situation of this organ requires particular investigation, because it varies with the structure of the head and the relative position of the brain. Horses, whose ears are set very near each other, are skittish and timid, while those whose ears are far apart, at their base, are bold and steady. Dogs, also, that are incapable of being trained to fight, have the head narrow above and a little behind the ears; while the heads of those that are rashly bold, are broad in this region. Amateurs of pigeons have, long since, made the same observation upon these birds. In the first interview I ever had, in my travels, with a devoted amateur of cock-fighting, he thought he was confiding to me a great secret, by telling me that, by the sight alone, he could distinguish good fighters from poor ones, and pointing out, as the distinguishing mark, a great breadth of the head, a little in front of the ears. This man had no knowledge of my discoveries. At this period I had already made this observation on barn-yard cocks, and afterwards confirmed it by comparing them and their hens, with game-cocks and their hens. Dr. Spurzheim has had frequent opportunities, in England, of repeating this observation on the game-cock. The hen of this variety have such an animosity towards all other hens, that it is impossible for them to remain in the same yard with the former. The rook and crow have the head much broader in this region, than many species of eagles and falcons; and what creature is more courageous than the large black crow (corvus corax)? The

moment I put my eye on the head of a wren, his indefatigable temerity was explained to me. Organology can alone explain, how the wild rabbit dares to pursue, and succeeds in vanquishing the hare. It is the same conformation of the head, that makes the instinct of self-defence so active in the hamster, and so many other frugivorous animals, and impels them to engage in the most obstinate combats.

Opinions of some other Physiologists on the origin of Courage.

It cannot be supposed, that, before the discovery of organology, the different qualities and faculties should have been laid down and described, and the common errors on this subject abandoned. But we cannot conceive, how physiologists of the present day can still have recourse to assertions entirely gratuitous, to explain the origin of the faculties. Richerand thus expresses himself on the subject of courage.

"The heart is likewise larger, stronger and more powerful in courageous, than in weak and timid animals. This is the first instance of a moral quality depending on a physical disposition of parts, and is one of the most striking proofs of the influence of the moral on his physical nature. Courage arises from the consciousness of strength, and the latter is in proportion to the activity with which the heart propels the blood towards all the organs. The inward sensation produced by the afflux of the blood, is the more lively and the better felt, when the heart is powerful. It is on this account, that some passions, anger, for example, by increasing the action of the heart, increase a hundred fold both the strength and courage, while fear produces an opposite effect. Every feeble being is timorous and shuns danger, from an inward consciousness that he does not possess sufficient strength to resist it. It may perhaps be objected, that some animals, as the turkey-cock and ostrich, have less courage than the smallest

bird of prey, and that the ox has less than the lion and many other carnivorous animals. What has been said, however, does not apply to the absolute, but to the relative size of the heart. Now, though the heart of a hawk be absolutely smaller than that of a turkey-cock, it is nevertheless larger in proportion to the other parts of the animal. Besides, the bird of prey, like the other carnivorous animals, owes his courage, in part, to the strength of his weapons of offence.

Another, more specious but not better founded objection, is drawn from the courage, manifested on certain occasions by the most timid animals—by the hen, for example, in protecting her young; from the courage with which other animals, pressed by hunger or lust, surmount all obstacles: and particularly from the heroic valor of men of the feeblest bodies. All these facts, however, are only proofs of the influence of the mind on the body. In civilized man, the prejudices of honor, considerations of interest, and a thousand other circumstances, change the natural inclination, so as to make a coward of one, whose strength would induce him to brave all kinds of danger; while, on the other hand, men, whose organization should render them most timid, are inspired to perform the most daring actions. But all these passions, all these moral affections, operate only by increasing the action of the heart, by redoubling the force and frequency of its pulsations, so that it excites the brain or muscular system, by a more abundant supply of blood." *

This whole passage is false. Courage never arises from the consciousness of strength. There is no one who is not acquainted with very strong men, who are not only peaceable, but even timid. Even in cases, where every thing appears to depend on the bodily strength, the strongest are not the most courageous, intrepid, and rash. The largest dogs, the greyhound, for example, are

* Elements of Physiology, sect. li.

the greatest poltroons; they never can be trained to fight, because they fly at the first attack. Even among mastiffs and common dogs, the smallest are often the most courageous and the most bent upon fighting. I have, at this moment, a dog of one of the smallest breed, reared by girls, who, the first time he met another dog, attacked him most vigorously. He is absolute master of every dog at all near, or even somewhat above his own size, and when he is sometimes thrown down by a much stronger dog, he is never intimidated, but gathers himself up instantly, and renews the attack with increased spirit. The wild rabbit, let me repeat, though smaller and weaker than the hare, will, when they are inclosed in the same park, drive him away and put him to flight. The game-cock, as has been already mentioned, is smaller than the barn-yard cock, though he attacks and vanquishes him. Every day I see, in my yard, the smallest English cocks fighting with large ones of the ordinary kind, and very often they are successful. If, therefore, to possess courage, something more is requisite than bodily strength, Richerand's objection is without the slightest foundation, and must, consequently, fall to the ground. I have elsewhere cited some examples of men known in history for their courage; such as Attila, Alexander, Pepin-le-Bref, who were of small size, and the reader will recollect many other similar cases.

When Richerand says, that the heart is larger, stronger, and more powerful in the courageous than in feeble and timid creatures, he advances an assertion entirely gratuitous, which he has not taken the trouble to support by a single example, drawn from comparative anatomy. It is true, the size of the heart bears a certain proportion to the stature, or to the venous and arterial system; but this proportion has no relation with any quality or faculty whatsoever. The heart of the hare is much larger than the biggest cat's. As for the rapidity of the heart's pulsation, I defy Richerand to find them more rapid at the sight of peril, in the hero than in the coward. "We see," says M. Nacquart,

"that in brutes, the disposition that impels them to kill, is nearly related to that of fighting, and that they are even confounded together. The dog has not learned to distinguish the disposition to kill from the disposition to fight; and with the wolf, to attack and kill are one and the same thing. Thus, the two dispositions have not an independent existence, so long as the individual enjoys moral liberty to any extent. It is as if we should consider physical love a different propensity from that of moral love, because, in man, there is a well-marked line of separation between them, and one which seems apparent even in brutes at all capable of choice; whence we conclude, that the disposition to fight, is a modification of that of murder."

I have elsewhere said, that a living being is capable of being determined by motives, the number of which depends on the size and quality of the brain, and on the number of organs to whose influence he is submitted. Man is not sensible to the pleasures of sensual love exclusively, but may also be captivated by the charms of beauty, by the attractions of virtue, &c. Here is the ground of difference between physical and moral love, though these two species of love are much more nearly related to each other than many people imagine. Why is not the Corypheus of Platonic love inflamed by the ravishing charms of moral love, when seen in a man or an old woman? Is not what we call moral love chiefly an illusion, that ordinarily finishes where physical love begins?

If M. Nacquart had been acquainted with the natural history of the instinct of the defence of self and property, and with all its different manifestations, as I have pointed them out, he surely would not have admitted the disposition to murder and the instinct of self-defence to be only modifications of the same fundamental quality. I will not stop to cite the thousand of examples furnished by the animal kingdom, but will content myself with recalling to the reader what history teaches us respect-

ing the manner in which heroes, equally well known, were accustomed to act.

"Charles XII., who was inflexible even to obstinacy, and rashly courageous, was a scourge to the human race: thousands of men destroyed by fire and sword, was the result of his warlike ardor. Pepin-le-Bref was no less courageous, but was not cruel. Du Guesclin, who thought of nothing but fighting, even from early childhood, was, like Turenne, humane and generous. He always protected women and children, too often the victims of sanguinary fury." Does not experience show, that the cowardly, when in power, shed blood in torrents, without necessity or object; while, ordinarily, the most gallant prevent every unnecessary effusion of blood? Besides, the organs of fighting and of murder are by the side of each other; they render mutual aid, and many acts are the result of their simultaneous activity. It is not astonishing, then, that the mingled functions of these organs should appear to be only a modification of one or the other of these two propensities. Thus we see men, with the propensity to kill very energetic, without having courage; and some with indomitable courage, without the slightest inclination to kill. Thus, too, there are dogs, some frugivera, and other animals, who are very courageous, without evincing any admixture of the murderous instinct. We have seen, that, notwithstanding the instinct of propagation, a man does not love all women indiscriminately, nor one woman, all men; and that, notwithstanding the instinct of love of offspring, a mother does not love all children equally alike. So, a courageous man does not brave all kinds of danger with equal intrepidity; and frequently one who fears a sword, will use a pistol with equal boldness and valor.

The notion is, that courage is produced by the fear of dishonor and disgrace, by ambition, jealousy, example, &c.; in short, by a variety of motives. All these different motives may indeed stimulate courage, where the organ exists; but, where the fundamental quality

does not exist, for want of a suitable organization, no motive, nor any other untoward irritation, can give rise to it.

Cowardice.

Is cowardice, or timidity, the consequence of a small development of the organ of self-defence, or does it proceed from the action of some other organ? There can be no doubt, that caution may sometimes moderate the desire to fight; but I believe that this same quality may, just as often, excite us to defend ourselves, and overthrow an enemy. Experience shows, that men and brutes eminent for caution, are no less courageous than those who want it; whence we may conclude, that cowardice proceeds rather from a too feeble development of the organ of self-defence, than from the influence of caution. At any rate, caution will never produce fear, except so far as it makes known the superiority of an adversary, or when the organ of self-defence is but little developed. Spurzheim, however, not coinciding in the belief, that fear originates from little development of the organ of courage, has opposed this view, and endeavored to prove, that fear depends rather upon the organ of caution. This induced me to append to the third volume of my large work, some remarks on negative qualities, and on fear, as follows.

I call *negative qualities*, those that are not the result of activity, or of a fundamental quality, but which take place when a fundamental quality is inactive, or entirely deficient. A giddy and heedless disposition must be the necessary result of a want of cautiousness: it is therefore a negative quality, and is derived from no active fundamental quality. So, also, humility and modesty are the negations of pride and assurance. Chastity, while a man suffers no temptations, and feels no thorn in the flesh, is but a passive quality, without merit: it becomes a virtue only, when, by the force of elevated motives, the individual subdues his de-

sires, and restrains his inclinations. Modesty and humility become meritorious, when they result from reflection on our own weakness and the narrow limits of our knowledge. Cowardice is always a passive or negative quality. Fear is sometimes negative, and sometimes positive; the most courageous will fear when they find themselves in the presence of an enemy, or of a danger superior to other powers. The dog most eager in the chase, will recoil before the formidable weapons of the tiger. Here, fear is a matter of calculation, a consequence of caution. A very high degree of courage, joined to a great deficiency of cautiousness, makes the rash man rush into invincible danger. But he who fears a danger, or an enemy, which the least effort would overcome, is a timid, cowardly, pitiful creature; and these qualities certainly have not their source in cautiousness.

Spurzheim considers fear to be an affection of the sentiment of cautiousness, and does not believe that the want of courage can be the cause of fear. He cannot comprehend any such thing as negative qualities. The absence of a faculty, he says, may modify the action of the other powers, but can never produce a positive sensation. A want of courage, he thinks, renders a person peaceable, but does not inspire fear; for, if this were the result of the absence of courage, he cannot comprehend how one may, at the same time, be courageous and in fear. Besides, there are some species of animals and some men, that experience these two sentiments. The stag is both timid and courageous.

If the absence of a faculty never produces a positive sensation, Spurzheim is wrong in considering fear, under all circumstances, to be a positive sensation. When we say that a man or brute is timid, we do not necessarily mean, that, at this very moment, he is agitated with fear, as people are affected with anger or fright. We mean by this expression, that he is a timid, cowardly man, or brute, as the case may be; and that such are more easily made to fear, than the courageous. If a deficiency of courage merely, makes a man peaceable, without giving

rise to fear in the presence of danger, I wish to know what are the qualities, that sometimes produce an aversion to women, even to abomination, if it be not the want of physical love? What are the qualities, too, that create an aversion to music, if it is not a want of the musical talent? or, give rise to erroneous judgments, if it be not a want of intellect? or excite disgust at the sight of food, if it be not a want of appetite, or some defect of the digestive powers? How can Spurzheim, upon his hypothesis, conceive of hatred, calumny, cruelty, imbecility, since none of these qualities arise from any fundamental power?

To me, these phenomena are perfectly intelligible. Outward objects are a source of pleasure, only so far as there exist certain relations between them and us, established by means of the cerebral organs. For this reason, when in the glow of youthful strength and health, we are pleased and charmed with a thousand things, which, when our powers have begun to decay, are matters of indifference to us, and excite even an aversion, which, when the mind is peculiarly depressed, proceeds to a distaste for life, and a disposition to suicide. When certain objects have lost their former relations to us, they are no longer in harmony with our spirits, and henceforth there succeed estrangement and aversion. Who has not learned from experience, that a surfeit of certain enjoyments is followed, not only by indifference, but by a real disgust for the same things that, a little before, were the objects of our most ardent wishes. In the same manner, when our limbs are fatigued, we feel an aversion to travel. We may say, with Bonald, that those who have no taste for metaphysics, mathematics, &c., are musical instruments, that have not their complement of strings.

Finally: if cautiousness be the source of fear, the heedless must always be exempt from this emotion, and fear will be in direct proportion to cautiousness — a position which is constantly belied by experience. Spurzheim cannot understand how one can be courage-

ous and timid at the same time, if fear be the result of the absence of courage. But why does Spurzheim here neglect the principles on which, in other places, he insists so strongly and so justly too, that actions are rarely the result of a single organ? Admitting this principle, and this part of the objection is already answered by our remark, that the most courageous men and brutes do not, on that account, lose the power of measuring their own strength with that of their enemies. Armies composed of men renowned for courage, have been seized with a panic: has not the intrepid Roman also sacrificed to Fear?

M. Demangeon, with inexhaustible perseverance, drives away at the question, whether fear proceeds from a want of courage, or of some other faculty, and whether there is a special, unique organ of courage. With the whole force of his military talents, he directs against me a war of extermination. "Courage, therefore," he concludes, "does not belong to a particular organ, and this conclusion is derived from Gall's own acknowledgment." As I have engaged to answer all objections, the reader must pardon me, if I detain him too long, perhaps, with this formidable dispute. "We have already seen," says Demangeon, "that Gall founds negative qualities upon the absence or weakness of organs, and in the following words, we have his views of fear. [He here quotes my own words a little altered, from, "If a deficiency of courage makes a man peaceable, to "we feel an aversion to travel."] Gall adds, that "cowardice is always negative; that fear is sometimes negative, sometimes positive; and that the most courageous are afraid, in presence of an enemy or danger superior to their strength."

Demangeon begins his attack, by quoting from Spurzheim, who says, "Let us suppose, that the two expressions, to be a coward, and to feel fear, are synonymous; still I neither see that we can therefore infer, that fear is negative, nor, that the knowledge of danger and the sensation of fear take place in the same faculty. I,

however, conceive that the knowledge of any danger may affect the sense of circumspection, in a manner to which the name fear is applied, just as it may excite courage, and make a person fight with fury. Neither courage nor circumspection know the danger nor reflect on it. Sometimes the most innocent and harmless things inspire fear. Any one endowed with courage, self-esteem, acquisitiveness and firmness, if his circumspection be considerable, will feel less fear than another with smaller circumspection, and deficient courage, self-love and firmness. The reader must also bear in mind the meaning, which I attach to the term affection, and remember, that affections do not depend only on the different degrees of activity of the faculties; that the sense of touch, for instance, though obtuse, produces the sensation of itching; that, in the same way, fear is an affection or quality of circumspection; and he will perceive that Gall's reasoning, when he objects that the careless, upon my views, must be entirely exempt from fear, does not refute my opinion." *

Because I said, what all the world knows, that the most courageous being may sometimes feel fear, why does Spurzheim suppose, that, to feel fear, and to be a coward, are synonymous expressions? I do not believe, any more than he, that the knowledge of danger and the sensation of fear, take place in the same faculty; but I conceive, as a thing of necessity, that fear is an affection of the organ of courage, and not at all of the organ of circumspection; for, it would naturally follow, that the more circumspect a man is, the more fear he will feel, -and the more careless he is, the less fear he will feel,—circumstances not at all confirmed by experience. One of my nephews is as destitute as possible of circumspection, yet he is exceedingly timid, and the greatest coward imaginable. He is ashamed of it himself, and though he may be well enough convinced that, in certain

* Phrenology vol. i. pp. 204, 205.

circumstances, there is nothing to fear. he is none the less frightened, and cannot help growing pale and trembling. Nothing, he says, excites his compassion so much as a timid creature, for he knows how painful the sensation is. How, too, will Spurzheim apply his reasoning to those animals, which are sometimes cowardly, sometimes fearful, and sometimes courageous?

Demangeon still has recourse to Spurzheim, who adds, says, he, that if fear resulted from the absence of courage, we could not conceive how one could be timid and courageous at the same time; and also, that this double state of fear and courage, sometimes experienced at the same moment, may be easily conceived, if we make it result from the simultaneous action of circumspection and courage. He then continues as follows. "Let us still examine whether the analogies, quoted by Gall, refute my opinion on the origin of fear. He compares fear with fatigue, disgust, and other sensations, which result from a satiety, or an exhaustion of certain faculties. Will he then maintain, that fear is ever the result of courage when exhausted? He compares it also with the inactivity of faculties, with imbecility, and with the imperfect functions of the intellectual faculties, or false judgments. None of these comparisons, except that with imbecility, is conformable to the definition given by Gall of negative qualities, among which he includes fear, hatred, calumny and cruelty. Several persons are fond of reasoning, but their conclusions are false; others are fond of singing, and making melodies, but cannot produce harmony. False judgments, therefore, are not the effect of an inactive state of the faculties." *

I reply, that we never are timid and courageous at the same moment, but that we may feel courage and fear at the same moment. I was, one day, walking in a by-path, from which there was no opportunity to escape, either to the right or the left; and while least expecting

* Phrenology, vol. i. p. 203.

it, an ox rushed furiously towards me. I certainly was frightened and felt fear, but my courage did not forsake me. Luckily, I instantly found a pretty large stone, which I threw at him, and struck him in the forehead. Surprised and stunned, he turned up the road and went away. My fear and the ox's too was a positive fear, since neither of us wanted courage, but each had a powerful enemy to contend with. Now it is true, that if fear resulted from an exhaustion of courage, as these gentlemen make me say, this double state of the organ of courage would be impossible; but not so, if, in these cases, fear is nothing but an affection of this same organ. This affection may indeed be produced like courage itself, by circumspection and a thousand other motives; but no one can confound such fear, in a courageous man or brute, with the absence of courage, with cowardice, or faint-heartedness, which are purely negative qualities, and which certainly have not their origin in circumspection.

Every thing that Spurzheim has made me say in this passage, is pure fiction. He applies to our discussion on fear, what I have said to render my ideas on negative qualities more intelligible. Nowhere have I compared fear with fatigue or disgust, nor with any sensation whatsoever resulting from satiety, or from the exhaustion of certain faculties. I have expressly copied my own words, without addition or diminution, and I seek in vain for any thing that will bear the construction, that fear is the effect of exhausted courage. Neither can I find that I have compared fear with false judgment. I said, indeed, that the inability of judging correctly results from a want of intellect. As to hatred, cruelty, calumny, &c., I would ask how Spurzheim explains them upon his theory, without examining whether these modes of manifestation are purely negative, or the result of the influence of several organs, or simple affections of certain organs. I merely recollect, that Spurzheim himself derives malice from the small development of benevolence. I believe it was cautiously remarked,

in my large work, that, "sooner or later, and sometimes in the least important circumstances, we shall discover in persons, in whom these cerebral parts are but feebly developed, a malicious, hateful, vindictive, ungrateful and slanderous character. Whether the reason is, that, in such cases, there exists no organ whose activity can maintain the balance of the other organs, and that thus selfishness predominates; or, that the small development of this cerebral part, gives rise to a hateful disposition, it is always certain, that persons thus organized, unless motives of an elevated kind come to their aid, are never capable of enduring benevolence." *

Demangeon now appears alone on the field. "It is necessary," says he, "to know and appreciate a danger or a misfortune, in order to fear it, and therefore infants, idiots, fools, and the new-born young of animals, feel no fear, or not the same fears as other men and old animals, although in them there is an absence of courage. So far from being the effect of exhaustion or inactivity of an organ, as Gall pretends, fear results from the excessive activity of certain faculties, which presage evils from real or imaginary causes; for, it cannot exist without an object; that is, we cannot be in fear of nothing. This is why women, young persons, the subjects of hysteria, hypochondria, or any other nervous affection which increases the nervous sensibility, as well as those who possess a highly excitable imagination, easily sacrifice to fear. It may therefore be the result of the activity of all the different faculties and sentiments, that put us in relation to objects that appear to menace our existence, or happiness. Spurzheim, therefore, is undoubtedly more consistent, and nearer the truth, than Gall. Still he attributes too much of this sentiment to the organ of circumspection, which, by enabling us to foresee a possible danger, and prepare the means of escaping it, is as likely to confirm as to depress our courage, as

* Tome iv. p. 218.

when we traverse a forest by night, with or without arms."

It seems that Spurzheim and Demangeon think they have found a powerful argument against me, in the expression, *exhaustion of the organ of courage;* since they are incessantly attributing to me an idea which no where exists in my works. It is by no means true, that it is necessary to know and appreciate a danger, in order to fear it. A coward may be well convinced, by reasoning, that he has nothing to fear, without being any the less liable to fear and tremble. Do we not every day see people quaking with nervous agitation at the sight of a spider, or a mouse; at the sound of thunder, or of the rustling of the wind? How often do we see children crying at the sight of a stranger? Certainly, new-born children and brutes feel no fear; for, fear being an affection of the organ of courage, it is at least requisite that this organ should be developed to a certain degree, before it can be affected in a certain way.

"If our authors," continues Demangeon, "had admitted an organ or instinct of self-preservation, (which they might have admitted with as much as, and more reason than many others, since this instinct is general, and graduated upon a particular disposition in all species and individuals; since its manifestation disappears, like that of others, in certain diseases and under certain circumstances, and is as essential to the end of nature as any other,) we might derive fear and courage from it chiefly, admitting other faculties to choose the means of preservation. We could thus better explain, what those authors have not at all done, why the same individual is timid or courageous, according to the different positions in which he may be placed; and why, when we perceive the folly and danger of the suggestions of fear, for personal safety, despair awakens our courage by thinking of acts of heroism, as is the case with the modern Greeks, and other oppressed people." There, then, follows a long enumeration of cases, where men, nations, and armies have been courageous or in fear, according

to the difference of circumstances; and M. Demangeon concludes, that courage depends on all the faculties which enable us to judge of our position, and of the means of extrication.

Undoubtedly, the other organs may furnish motives both for courage and fear; otherwise the poltroon would never manifest a spark of courage, when opposed to a still greater poltroon than himself; and the courageous man would never be intimidated by an enemy, however superior he might be. Fear and courage are therefore, in certain cases, a matter of calculation; but, without the organ of courage, no imaginable circumstances could create courage in any of its forms, any more than a man or woman could create the sexual passion, without a particular organ therefor.

Demangeon would adopt other notions on the origin of courage and fear, if he would reflect, for a moment, upon the different conduct of the courageous and the cowardly, in perilous circumstances. The poltroon takes flight, abandons his enterprise, resigns himself to despair, submits, and dies like a poltroon, as he is. The courageous man resists, his spirit is roused, and the more imminent the danger, the more boldly and perseveringly does he contend with it; and if he must succumb at last, he avenges his defeat by the death of his enemies. Behold those young conspirators, whom they are leading to the scaffold;—some are fainting and bathed in tears, while others brave death, and throw themselves under the murderous axe, as if they were going to fight the enemies of their country. To go no further for examples, take some specimens from the adventures of my youth.

My fellow-pupil Scheidler, the two daughters of the overseer of the Garden of Plants at Vienna, and myself, were one day botanizing. On our return, we were obliged to traverse by moon-light a forest, where, the evening before, a miller's boy had been murdered. Suddenly four men were seen approaching us, each with a sabre in his hand. "My God, my God," cried the young

ladies, "we are lost." I instantly picked up some stones, with which I filled my pockets, and keeping two in my hands, I enjoined upon Scheidler to throw sand in their eyes, in case I engaged with them. Having placed the ladies behind us, I waited with firmness for my four assassins to come up; but they being apparently as much frightened as ourselves, took the other side of the road, without saying a word, and pursued their way. Such a denouement made me laugh most heartily. Proud of my bravery, I offered my arm to the trembling ladies: but where was Scheidler all this time? At the approach of the men, he sunk down on the ground, and crept into the bushes. Certainly, I too was afraid, both for myself and the young ladies; but which of us was courageous, and which a coward? On the same occasion, he returned a minute afterwards accompanied with five students. When we had gone nearly a league from Vienna, we heard, at a distance, a great uproar and cries of distress. What was to be done? Should we continue our route, or return to the nearest village? Four of our companions returned, myself and another determined to pursue our course to Vienna. Having reached a piece of woods, we observed people running this way and that, in all directions. Being well provided with stones and sand, we marched on steadily and slowly, while the people ran by, as if frightened, to the right and left, and suffered us to pass unmolested. A quarter of a league further on, the people of a tile-kiln came out to see who we were. I had often got a bowl of milk of one of the women, and when they recognized us, we were congratulated on arriving safe and sound, since, a butcher had been murdered just before, near the kiln. Here again, we both felt fear — a fear of calculation — but we were not poltroons, like those who had deserted us, since their fear arose from want of courage.

"Fear or terror," continues Demangeon, "causes a whole army to shake and tremble before the battle, and the fall of a chief damps courage in the midst of its

efforts; and this, according to Gall, must result from the exhaustion or absence of the organ on which he makes courage depend. To save his organology, we must admit effects without causes; for, to attribute a sinister presentiment which is deduced from a precipitate judgment or from reflection, to a negative cause, is to attribute it to a nullity of cause, or, in fact, to no cause at all. It must be admitted, that a prejudice like this, so strong as to resist all evidence, in order that a favorite system may suffer no disturbance, is not just the thing in a physician; and Gall would do well to consider, lest, in charging his opponents with bad faith, this reproach may attach to himself; for, no one has shown more obstinate adherence to his errors, than himself."

That Demangeon, in writing this passage, felt a little turning of the stomach, appears from a foot note appended to the words, *it is not just the thing in a physician.* I will pardon him therefore, for confounding *obstinate adherence to his errors*, with *bad faith.* So long as the facts that support my propositions are attacked by nothing but tangled reasoning, I shall obstinately maintain them. But whenever I find myself opposed to nature, I shall abandon them at once, notwithstanding the customary charge that is always ready, of versatility of opinion. It is bad faith to put into the mouth of an opponent expressions he never used, and torture his words in such a manner, as to make his meaning absurd. For instance, when it is said that, according to Gall, fear or panic results from fatigue or absence of the organ on which he makes courage depend, they are as guilty of bad faith, as if they had said, that, according to Gall, the impotence that suddenly succeeds the most ardent desire, in consequence of the discovery of some disgusting circumstances, results from the fatigue or absence of the organ in which he makes the sexual passion depend. It would also be bad faith, if, after all that Gall has said of the influence of circumstances upon the activity or inactivity of the organ of courage, they should still charge him with the position, that the danger of the

child could not arouse and put in action the mother's organ of courage; that confidence, hope, honor, excitement, denial of every thing for the sake of the favored object, such as the object of a passionate love, a child, a husband, a dear parent, a benefactor, or one's self—objects that Demangeon alleges to be the principal elements of courage, could not renew a courage, ready to yield.

"That Gall," continues Demangeon again, "may try no longer to sustain the opposite of the truths I establish, I mean to confirm them by proofs which he has furnished himself, without wishing or even suspecting it. He says, that *we begin and remove one obstacle after another in succession, but that we recoil, on the contrary, before an imposing mass of difficulties: that the most courageous feel fear, when in the presence of an enemy, or a danger superior to their strength: that the most resolute dog retreats before the tiger: and that then fear is a matter of calculation, the consequence of circumspection; he admits, that fear is sometimes negative, sometimes positive, but that cowardice is always passive, and a negative quality.* All this now is contradictory, for if fear may be a matter of calculation, it is impossible for courage not to be another calculation based upon a different judgment; and then it would be wrong to admit an organ for courage, or else one should be admitted for fear also. As he does not explain, how one kind of fear differs from another, it is to be believed that he is no stranger to positive fear.—to that which is a matter of calculation, and which causes one to retire before a difficulty. If negative fear is courage, as negative courage is fear, all we can say is, the proposition sounds very much like nonsense, and perhaps it is because Gall was aware of it himself, that he avoids explanation. In no case can we consider functions to be negative qualities, in his sense, by making them result from absence or inactivity of organs. To admit that fear is sometimes a matter of calculation, is to yield us considerable, since it cannot but be admitted,

also, that, with more favorable chances, courage would have been the result; or, in other words, it would be the effect of the combination of many faculties, which compare the means of attack and defence with obstacles and resistance, and thence deduce the chances of success, according to the degree of prudence or temerity. We are discouraged by fruitless attempts, and encouraged when undeceived respecting imaginary difficulties. We say of one, who undertakes more than he is able to perform, that his courage is greater than his strength, or his prudence; because the principal elements of courage are hope and confidence; otherwise, it would be nothing but folly and rashness, two qualities which Gall derives from the too partial exercise of faculties. Courage, therefore, does not belong to a particular organ, and this conclusion is deduced from the acknowledgments of Gall himself."

All that I have said, in the passage quoted by Demangeon, is perfectly in accordance with nature and daily experience. I not only admit, but will maintain, that fear is sometimes negative, and sometimes positive; and that cowardice is always passive, and a negative quality. Where does Demangeon find the contradiction? True, fear and courage may be a matter of calculation, without there being a particular organ for fear. A danger beyond my whole strength, reduces my courage to a reasonable fear — to a fear of calculation. Throughout my long paragraph on negative qualities, and in that quoted by Demangeon, the difference between positive fear, or the fear of calculation, and passive fear, or cowardice, is clearly explained; so that I still have reason to charge Demangeon with bad faith, in saying that I do not explain how one kind of fear differs from another. When he says, that the principal elements of courage are hope and confidence, the remark is true only in the sense, that courage inspires hope and confidence, and that cowardice paralyzes the strength which would be more than sufficient to surmount the danger. Every day I see timid persons getting much further out

of the way of the carriage, than is at all necessary, or going back while in the act of crossing the street, when it would be much shorter to continue on. Why do these persons want confidence? Because they have no courage. Courage therefore belongs to a particular organ, and this conclusion is not based upon sophisms, but upon the visible and palpable difference between the crania of courageous men and animals, and those of cowardly men and animals.

"In the following passages," continues "Demangeon, he proves that cowardice is not negative, while endeavoring to prove the contrary. 'When we say, that a man or brute is timid, we do not necessarily mean, that, at this very moment, he is agitated with fright or anger. We mean by this expression, that he is a timid, cowardly man or brute, as the case may be; and that such are more easily made to fear, than the courageous. Armies composed of men renowned for courage, have been seized with a panic: has not the intrepid Roman also sacrificed to fear? If a man or brute is timid or courageous, only at certain moments and in an accidental manner, it is necessary that his fear should be awakened by particular circumstances, and, consequently, that there should be some faculty to put him in relation with these circumstances, and make him acquainted with them. This now supposes, and absolutely requires, real functions and positive organs; so that fear is not a negative quality, even in the cases where Gall has more particularly designated it as such. If it requires the activity of faculties that preside over self-preservation; if it ceases, and its manifestation becomes impossible without the existence of these faculties; then it must, of necessity, depend upon them. On the contrary, if it may be equally manifested with or without courage, as is admitted, it does not depend on them, either positively or negatively. Courage and fear are two opposite impulses, or principles of conduct; that is, they are based on different views or judgments, but one is as positive as the other. This passage, therefore, proves just the

contrary of what the author wished to prove. He cannot pretend, that well-developed courage would silence the faculties that preside over self-preservation; for he declares himself, that this active state of a single organ is all folly, and it would be an absurdity *in adjecto* to suppose courage to be blind, and to result from the exercise of a single faculty. Rage or phrenzy only can be considered in this light; for, rashness itself supposes the exercise of many faculties.'"

In my work I made use of the following expression; "When we say, that a man or brute feels fear, we do not necessarily mean, that at this very moment, he is agitated with fear, as people are affected with anger or fright." Instead of this, he has quoted me as saying, "*that at this very moment he is agitated with fright or anger.*" I would like to attribute this mutilation to the inadvertence of the printer; but, when Demangeon skips over forty-one lines, and places immediately after this passage, a sentence from an entirely different paragraph, in which it is my object to prove, that the most courageous men and animals do not, on that account, lose the power of measuring their own strength with that of their enemies; that armies composed of men renowned for their courage, have been seized with a panic, &c., is the printer here chargeable with bringing together two sentences of opposite meaning, with the express design of justifying the author in constantly confounding cowardice with that reasonable fear, resulting from other faculties, which could never give rise to fear without the existence of an organ; a certain affection of which should constitute this sentiment?

Suppose I should reply to Demangeon, that, when a man or brute walks, or reposes, or is fatigued, or paralyzed only at certain times and in an accidental manner, certain faculties must produce in him repose, fatigue, or paralysis, and that therefore, repose, fatigue and paralysis are not negative, but must depend on particular organs, just as much as the power of voluntary

motion, would he not be charmed with the correctness of this conclusion?

Finally, Demangeon, after exhausting our courage, concludes, —"that the existence of a special and unique organ of courage is inadmissible; that the instinct of self-preservation is provided for in the brain, and that even courage, fear, circumspection, prudence, love of offspring, the desire of renown or immortality, &c., are more or less submitted to the influence of this instinct, which, being all essential to the ends of nature, could not have been forgotten by the Creator of all things, as it has been by our two physiologists, who have left a great many waste places in the domain of thought."

On this last point, we are precisely of the opinion of Demangeon, and the more we speculate, the more vast and barren will these waste places become. As for the instinct of self-preservation, I am equally persuaded, that the Creator of all things has not forgotten it. Neither have I forgotten it. For a long while, I thought this idea extremely plausible, but, as I discovered fundamental qualities and faculties, I perceived that they were all destined to the great end of self-preservation. The existence and preservation of an animal are intimately connected, and the instincts, dispositions, talents, in one word, the qualities and faculties, are so many indispensable means of the preservation of his existence. For this reason, I have said that self-preservation supposes the instinct of self-defence. But preservation also supposes the social state, the instinct of a fixed abode, the instinct of being nourished on animals or vegetables, the instinct of cunning, the memory of facts, the instinct of emigration, the instinct of construction, &c. Demangeon himself, attributes to the conservative instinct, not only courage and fear, but also circumspection, prudence, love of offspring, the desire of renown or immortality. Reasoning in this way, all the functions of the brain and of the whole organism, might be reduced to a single function, a single end, a single instinct—the instinct of self-preservation; and in the midst of

our reasonings we should get, more than ever, lost in the abstractions and generalities of the metaphysicians,—an impassible barrier to all further research, the eternal tomb of all positive and special knowledge.

V. Carnivorous Instinct; Disposition to Murder.

History of the Discovery of this Instinct, and of its Organ.

By carefully comparing the skulls of animals, I found a characteristic difference between those of the frugivorous and those of the carnivorous species. Placing the skulls of the frugivora in a horizontal position on a table, and raising a perpendicular from the external opening of the ear, I found that there remained behind this perpendicular, only a small portion of the posterior lobes and the cerebellum; consequently, the external opening of the ear, and the petrous portion of the temporal bone, mark the limits of the cerebrum, in these species. Testing the skulls of the carnivorous species in the same manner, I saw that, in the most of them, the perpendicular strikes the middle of the whole encephalic mass, or, at least, leaves behind it a very large portion of the cerebral mass. Ordinarily, in the carnivora, the greatest prominence of the brain is exactly over the external opening of the ear.

I saw therefore that, in the carnivora, there are cerebral parts above and behind the ear, not possessed by the frugivora, and the same difference I found in birds as well as the mammifera. In all the birds of prey, this part of the brain swells out, while in all other species of birds, it seems to retreat, and the whole brain is situated in front of the external opening of the ear. For a long while I contented myself with communicating this observation to my hearers, without making the slightest practical application of it to organology. I showed them only how, by inspection of the skull, even when

the teeth were wanting, they might tell whether it belonged to a frugivorous or carnivorous animal.

The skull of a parricide was once sent me, which I put aside, without ever thinking that the skulls of murderers could be of use to me in my researches. Shortly after I received the skull of a highway robber, who, not satisfied with committing robbery, had murdered a number of persons. I placed these two skulls side by side, and examined them frequently. Every time I was thus engaged, I was struck with the fact, that, though very differently formed in other respects, there was, in each, a prominence strongly swelling out immediately over the external opening of the ear. The same prominence I found also in some other skulls in my collection. It appeared to me not merely accidental, that, in these two murderers, the same cerebral parts should be so much developed, and the same region of the skull so strongly prominent. I then began to make use of my discovery, on the different conformation of the brain and skull in the frugivorous and carnivorous animals, and for the first time understood the meaning of this difference. The brain of the latter, I said to myself, and that of the murderers, is developed in the same region. Is there any connection between this conformation, and the disposition to kill? At first, the idea was revolting, but, when the object is to observe, and to state the result of my observations I know no law but that of truth. Here too, then, let us endeavor to unveil the mysteries of nature: it is only when we have discovered the secret springs of our actions, that we can learn to guide the conduct of men.

Natural History of the Instinct of Murder in Animals.

Animals are divided into three principal classes; frugivorous, carnivorous, and omnivorous. Some, naturally frugivorous, such as the hare, horse, &c., may, in

case of necessity, feed upon flesh; and some carnivora, such as the dog, bear, cat, &c., may be nourished on vegetables; but this does not at all affect their real destination. It only proves that, because certain animals digest animal substances, they are not, on that account, solely, to be classed with the carnivora; and that others which digest vegetables, cannot be considered as belonging to the frugivora. They are accustomed sometimes to feed tame ferrets on milk, but they do not therefore renounce their original instinct, and are no less ready to suck the blood of a rabbit. With no more propriety can we call certain birds, the gallinaceæ for example, *insectivorous*, which commonly live on seeds, though they devour insects with avidity. I here confine myself exclusively to the carnivora, properly so called. Although they are all destined to devour other animals, there exist great differences among them relative to their murderous instinct. Many of them kill only such as are necessary for their subsistence; while others, like the weasel, tiger, &c., without impelled by hunger, kill and tear in pieces every living creature around them. The difference between dogs in this respect, proves to demonstration, that hunger and thirst for blood are not the sole motives that determine animals to slay one another.—All dogs are carnivorous; they prefer flesh to any other nourishment; still there are some in which we can hardly observe the carnivorous instinct, and which, surrounded by birds, mice, and hares, manifest no wish to destroy them.

Let it not be objected, that habit and education will account for all this. I know very well that we may accustom cats to live in peace with birds, mice, &c.; but I have had dogs, which, from their earliest youth, I tried to inspire with a taste for hunting these animals, but I never could succeed in giving them this instinct, because an inward antipathy opposed it. Other dogs, on the contrary, though fed on vegetable substances, and having even an antipathy to venison, have manifested an invincible passion for the chase, and an unbridled

rage for killing every kind of creature. With what a zest will they strangle cats, hares, foxes, &c.! We may remark, even among real hounds, a great difference in this respect. Some bring to their master, with the utmost precaution, the partridge, quail, fox, or hare, without doing it the slightest harm; while others always begin by finishing the work of the hunter, although frequently beaten to break them of this habit.

I have elsewhere spoken of one of my little dogs. He was reared by a very sensible lady, and it certainly was not his education that inspired him with the instinct for strangling animals. From the first hour he came into my house, he rushed upon every animal there, and strangled them, one after another. Did a bird leave its cage, he chased it till it fell on the ground exhausted with fatigue, when he killed it. A hundred times I beat him very severely, in the hope he would lose this passion, but in vain; it terminated in his becoming the hero of the place. Though smaller than a cat, he was the terror of these creatures: for the moment he perceived one, he laid down flat before it, and the instant the cat raised its paw, he leaped on its neck, nor let go his hold till it was dead. Several times, my friends and myself amused ourselves, with letting him run in a room where were some dozens of rats. The strongest spaniels often recoiled from their furious attack, while my little lap-dog was shaking with impatience in my arms, till I put him down, when he ran with the greatest sang froid from one to the other, and killed them by one grip in the neck. He never turned his head to look at one he had destroyed. Frequently, he would watch a rat for whole weeks, and would always succeed at last in entrapping and killing it. When he perceived a water-rat in the river, he sprang from the bridge, and never took to the shore till he had either taken, or lost sight of it. These examples prove that it is not hunger and thirst only, that impel animals to slay one another.

There are authors, who call such facts old-wives' fables, and think it ridiculous for me to support organ-

ology, by citing the qualities of a lap-dog; but with what but facts can we support a doctrine? and what matters it whether they relate to a shrew-mouse or to an elephant?

The proof of the independence of this disposition is strengthened by the fact, that it reached so high a degree of activity in a creature, whose education and want of physical strength would induce us to presume a disposition precisely contrary.

External Appearance of the Organ of the Carnivorous Instinct and the seat of the organ in animals.

Naturalists are in the habit of drawing the characters that distinguish the carnivorous animals from one another, from the teeth, claws, stomach and intestines. If they may be believed, the conformation of these parts sufficiently explains the instinct that impels these animals to kill, and consequently they disdain to seek in the brain for an organ of the disposition to murder. These instruments are all in harmony with the higher internal power, but they cannot give rise to it. We may give to the sheep, the teeth and claws of the tiger, but unless we change the disposition of its brain, it will never feel the internal impulse to attack and destroy.

The tiger, in a meadow covered with grass, would perish with famine, sooner than he would think of eating it. The idiot and the maniac, with the best formed hands, would never learn to paint or build, while the necessary impulse from a higher power were withheld. When we stop confounding the executive instruments of an instinct or disposition, with the internal legislative power, we shall be forced to admit a particular organ for each particular instinct.

Before passing to the proofs, I wish to draw the attention of naturalists to a phenomenon, which they certainly cannot explain by means of the teeth, claws, stomach, and intestines of the carnivora. Each species has its

peculiar manner of killing its prey; while some strangle their victim and tear open his throat, others seize him by the nape of the neck, &c. Who, now, has taught these animals to follow these methods of killing? How can the teeth, claws, stomach, and intestines determine the kind of death, which is always suitable to the nature of the victim? Our ideas on this subject will become much more precise, from the moment we admit that the external world, so far as man and other animals act upon it, is in harmony with all our senses, both internal and external; and that the relations of the external world are revealed to all alike, by means of the cerebral organs. In this way, the actions of animals become in unison with one another, and suited to the nature of external objects; thus the falcon and marten act as though they had some knowledge of anatomy and physiology.

I may here remark, that, in all carnivorous animals, the organ is not situated exactly over the external opening of the ear. In some species, the stork, cormorant, heron, gull, sea-swallow, king-fisher, for example, the external opening of the ear is considerably drawn back, and the organ of the carnivorous instinct is placed immediately behind the orbits, forming a large prominence on each side. In comparing the crania of carnivorous birds with the skulls of those that can live indifferently either on animals or vegetables, this prominence is found to be less conspicuous in the latter, such as the duck and the thrushes; and it becomes less and less prominent, in proportion as the birds exhibit a more distinct preference for vegetables, such as the swan, the goose, the gros-beak, &c. It is particularly prominent in those that live exclusively on animal food, such as the spoon-bill, wren, falcon, and stork.

If we compare the crania of the mammifera, such as the bull, horse, ass, ram, buck, elephant, camel, hare, rabbit, guinea-pig, kangaroo, beaver, marmot, with those of the lion, tiger, hyena, lynx, wolf, bear, seal, rat, mole, ermine, weasel, pole-cat, ferret, marten, shrew-mouse, bat, &c. we shall invariably find the difference I have

indicated. This difference is more marked in different species and individuals, the more the carnivorous instinct predominates. The cerebral part above indicated is sensibly larger in the eagle and falcon, than in the crow and magpie; larger in the tomtit, particularly the largest species,* than in most birds that live on insects; larger in the wren† than in the mocking-bird; larger in the wolf than in the dog; larger in the lion than in the tiger.

At Vienna we always had two species of bears, the brown and the black. The former could be made to fight with every kind of animal; while we had to be satisfied with setting the dogs on the other, which lives almost entirely on roots and fruits. The same species may be seen in the royal garden in Paris. The head of the carnivorous brown bear is much broader and more swelled out over the ears than the other's, which is narrower and shorter.‡

I possess quite a collection of the heads of cats and dogs, in forming which, I always attended to the degree of the murderous instinct that each individual manifested. All good mousers, especially those that always give chase to rats and birds, have this region of the brain and cranium much more developed than those that live in kitchens and parlors. It is necessary to compare a great number of crania of animals of the same species, to be convinced, that the diversity of their form explains the difference of their characters. The intuitive knowledge thus obtained, also produces the most complete conviction of the omnipotence of innate dispositions.

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* It is well known that tomtits, especially the large species, devour one another.

† When we put a wren into an aviary with other birds, it drags the young of the others from their nests, and kills them.

‡ In Poland, they call the brown bear, *pferdeboer*, (horse bear,) because he attacks horses in preference to other animals. The black bear, in Norway, is called *grass boer*, (grass-eating bear,) because he lives on grass and the leaves of trees: at the approach of winter they get fat by eating nuts.

All dogs, also, which are fond of pursuing and killing mice, rats, birds, hares, hens, foxes, have this region of the brain and skull much more prominent, than those that have no taste, or rather have a distaste, for such things. Let all who are not yet perfectly convinced of the truth of my positions, make a collection of dogs' heads, always carefully informing themselves of the disposition of each individual. They will scarcely have collected a dozen, when they will be so far converted, as to become the most zealous defenders of organology. This diversity of forms is not confined to those little variations, that may leave room to doubt; they are, on the contrary, very striking.

The comparison of the black rat,* (*mus rattus. Lin.*) the brown, or Norway rat, (*surmulot, Buff. mus decumanus, Pallas.*) the hedgehog, the hamster, (*mus cricetus, Lin.*) the ermine, and the weasel, (*mustela vulgaris.*) with one another, is very instructive. The black rat and the hedgehog do not live exclusively on vegetable food, but devour small animals also. The brown rat is far more carnivorous and sanguinary. The hamster devours all small animals it meets with, even its own female, which also devours its own young. A dog must be perfectly trained, to attack successfully the brown rat and the hamster, while the ermine and weasel always come off best in the encounter. The head of the brown rat in the region in question, is much broader and more prominent than the black rat's; the hamster's is more so than the brown rat's; and the ermine and weasel, which are exclusively carnivorous,

* I do not here mean the same to which the name *mus rattus* is ordinarily given by authors, who confound the black rat with the one found in granaries. The former never climbs trees, nor frequents granaries, and is smaller than the brown rat. Its pelage is of the same color as the brown rat's, and its tail is scaly, like that of the latter, and as long in proportion to the body. The granary rat, in German *Speicherratze, blaue ratze*, has longer hair, which is of an ash-gray color; the tail is equally smooth, but half an inch or an inch longer than that of the two other species.

have the organ of the carnivorous instinct still more developed. Thus the cerebral organization explains why the brown rat and the hamster are eminently sanguinary, though naturalists, guided by the teeth, have classed them with the gnawers, (*rodentia*,) and, consequently, with the frugivora.

Thus then the whole animal kingdom concurs to prove, that the carnivorous instinct does not depend on the teeth, nor on the claws, nor intestines, but results from a particular cerebral organ, and that this organ is situated in the region of the brain which I have pointed out; that is, in the most external convolutions of the middle lobes in the mammifera; and which is manifested outwardly by a large round prominence, placed, in most animals, directly above the ears, and in others, a little before them.

Objection.

"If Gall and Spurzheim," says Demangeon, "would be consistent, after admitting a carnivorous instinct, why should they not also admit a frugivorous, ichthyophagous, and galacthophagous instinct, because the only result of the absence of the organ, is to prevent them from eating animal food, without, at the same time, giving them an elective instinct for vegetables, fish, milk, insects, &c.? If nature had not been more liberal than they, the non-carnivorous animals would have perished with hunger. There must be some organ yet, at the bottom of the bag, for putting the herbivorous and other animals in relation with their food, or else there is no reason for admitting one in favor of the carnivora. The conclusion appears to me strictly correct. Besides, the carnivorous instinct, to which our authors refer murder and cruelty, should also be an attribute of the non-carnivorous animals, which implies a contradiction. Or else they must explain, by the instinct of quarreling, or some other not mentioned by them, why the elephant

and rhinoceros engage in deadly combats; why the stag sometimes kills its female and young; why the working-bee kills the drone; and why man himself is far more cruel than brutes, without being actuated even by the want of nourishment, or by the instinct of quarreling or fighting; as appears in the gratuitous cruelty of a cowardly, pusillanimous tyrant; the cruelty towards defenceless animals and children, as well as that manifested in the shows of gladiators, bull-fights, &c. If all this can be explained by the organ of quarreling and fighting, then the instinct of murder is supererogatory, and an organological superfetation."

Reply.

If Demangeon had attended to the list of animals I mentioned, and which I have also drawn, he would have found some that eat fish; others, that eat milk; and others, insects; and he would have concluded, that the organ of the carnivorous instinct, accordingly as it is differently modified, assigns to each species its appropriate nourishment. In the spirit of Demangeon, we ought to admit as many organs of singing and construction, as there are different kinds of songs and of bird-nests; as many different instruments of locomotion, as there are different kinds of walking and flying. Since I find the same organization essentially in all animals, whether feeding on fish, insects, or oysters, &c., the fact arrests my attention, and I explain the variations of the result by the modifications of the organ. I am ready to admit a frugivorous organ, as soon as the cerebral parts belonging to it can be indicated; or whenever the instinct for animal food can be demonstrated to be nothing more than a modification or increase of the general alimentive instinct, obtained by means of a cerebral part, added by nature to that which alone would produce the frugivorous instinct.

In the rest of the passage quoted, Demangeon con-

founds the result of the instinct of quarreling with that which requires animal nourishment. As for the instinct of bees for killing the drones, I willingly resign to Demangeon the task of explaining this phenomenon, which, although still problematical, can never destroy a general and invariable truth.

Natural History of the Carnivorous Instinct in Man.

The first question presented to our notice is, whether man is naturally carnivorous, or is destined by nature to be exclusively frugivorous, using animal food, only in consequence of degenerating from his primitive destination.

Man is omnivorous. Flesh nourishes him full as well as vegetables. In the structure of his teeth, jaws, stomach, and intestines, he holds a medium between the frugivora and carnivora; relishing all animals, from the oyster to the pheasant, and all vegetables from the potato to the pine-apple. If the Creator had designed him to be nourished by vegetables only, nothing certainly could have turned him from his destiny. If, in certain climates, he is more exclusively carnivorous or frugivorous, it depends on the influence exerted upon him by surrounding objects and circumstances,—one kind of climate favoring the development of one organ, and repressing that of another, and vice versâ. Since then man was designed to feed on flesh, it is necessary, that, like the other carnivora, he should be induced, by an internal impulse, to kill other animals, and the history of all times shows that he is really endowed with this quality. It only remains for me, therefore, to show how differently this instinct is manifested in different individuals, and the part it sometimes bears in insanity and idiocy, in order to prove, that, in man, and other animals, it is an independent and peculiar function, and must consequently result from a particular organ.

In the fifth section of the first volume, I have describ-

ed the different degrees of the manifestation of this disposition. To save the reader the trouble of recurring to that volume, and to present the whole subject at once, I will repeat the passages relative to the carnivorous instinct, or disposition, to murder.

There is in man, an inclination, which varies in degree, from simple indifference at seeing animals suffer, and from simple pleasure at witnessing the destruction of life, to the most imperious desire of killing. Our sensibility revolts at this doctrine, but it is, nevertheless, only too true. Whoever would judge justly of the phenomena of nature, must have the courage to acknowledge things as they are, and, in general, not to make man better than he is.*

We observe that, among children as among adults, among coarse people as well as those who have received education, some are sensitive, and others indifferent to the sufferings of their fellows. Some even find pleasure in tormenting animals, in seeing them tortured, and in killing them, without our being able to charge it either to habit, or to a defect of education. I could cite several instances, in which this inclination, when very energetic, has decided individuals in their choice of employment. A student used to shock his companions by the particular pleasure he took in tormenting insects, birds, and other animals. It was to satisfy this propensity, as he himself said, that he made himself a surgeon. An apothecary's boy experienced such a violent propensity to kill, that he took up the trade of a hangman. The son of a shopkeeper, whose mind took the same turn, embraced that of a butcher. A rich Dutchman used to pay the butchers, who made large contracts for supplying vessels with beef, to let him kill the cattle.

We may also judge of the existence of this propensity and of its diversity, by the impression produced on spectators by the punishment to which criminals are subject-

* Vol. 1. p. 259.

ed. Some cannot support the spectacle; others seek it as an amusement. The Chevalier Selwyn made particular exertions to be placed near the criminal who was undergoing punishment. They relate an anecdote of La Condamine, that, one day, making efforts to penetrate the crowd assembled at the place of execution, and being repulsed by the soldiers, the executioner exclaimed, "Let the gentleman pass, he is an amateur." M. Bruggmans, professor at Leyden, mentioned to us a Dutch clergyman, who had so decided a desire for killing, and for witnessing death, that he took the place of almoner of a regiment, solely to have an opportunity of seeing a great number of men destroyed. This same individual raised at his house, the females of various domestic animals, and when they brought forth young, his favorite occupation was to cut their throats. He used to take charge of killing all the animals that were to be cooked. He corresponded with the executioners throughout the country, and would travel several miles on foot, to be present at executions; so that the executioners always secured to him the distinction of a place near them. On the field of battle we find striking examples of the different degree in which this disposition exists. One soldier, at the view of the blood which he causes to flow, feels the intoxication of carnage; another, moved by pity, inflicts feeble blows, or at least spares the conquered; turns away at the sight of a child, of a woman, and of an old man, and checks himself after a victory.

The man enslaved by the cruel propensity of which I here speak, still preserves the faculty of vanquishing it, or of giving it a direction which is not injurious. But the power of subduing a vicious propensity, is weakened in such an individual, in proportion as he has received less education, or the organs of the qualities of a superior order are less developed. If it happens that this propensity is carried to the highest degree, the man experiences but little opposition between his pernicious propensities and his external duties; and though even in this case

he is not deprived of moral liberty, or the faculty of being determined by motives, he still finds pleasure in homicide. I shall include in this case all the robbers, who, not content with plunder, have shown the sanguinary inclination to torment and kill without necessity. John Rosbeck was not satisfied, like his companions, with ill-treating his victims to make them confess the place where their treasures were concealed; he invented and exercised the most atrocious cruelties, for the sole pleasure of seeing the sufferings and the blood of children, women, and old men. His first imprisonment continued nineteen months; he was shut up in a subterranean dungeon, so narrow that he could hardly breathe. His feet were loaded with chains; he was up to the ankles in dirty water; and when he was taken from this sink, it was to undergo cruel torture. Still he would confess nothing; he was set at liberty, and the first use he made of his freedom, was to commit a robbery in open day. He soon committed new murders, and was finally put to death. At the beginning of the last century, several murders were committed in Holland, on the frontiers of the country of Cleves. The author of these crimes was a long time unknown. Finally, an old minstrel, who used to go to play the violin at all the weddings in the neighborhood, was suspected from some conversation among his children. Carried before the magistrate, he confessed thirty-four distinct murders, and asserted that he had committed them without malice, and without any intention to rob, solely because he found in them extraordinary pleasure. This fact was communicated to us by M. Serrurier, magistrate at Amsterdam.

The well-known Sabatino, condemned at Palermo, for various crimes, at the moment he ascended the scaffold, confessed that he had killed a man with a musket shot two years before. When asked what could have induced him to commit such an outrage, he coolly replied, that he had fired his musket on the man, to satisfy

himself that the powder was good! Journal des Maires, Saturday, Sep. 19, 1818.

Louis XV., says M. Lacratelle,* had a well-founded aversion to the brother of the duke de Bourbon Condé, the Count de Charolais, a prince who would have revived all the crimes of Nero, if, to the misfortune of mankind, he had been permitted to occupy a throne. Even in the sports of his childhood, he manifested an instinct of cruelty which might make one shudder. He amused himself in torturing animals: his violence to his servants was absolutely ferocious. They pretend that he tried to mingle cruelty even with his debaucheries, and that he practised divers barbarities on the very courtezans who were brought to him. The popular tradition, confirmed by several records, accuses him of several homicides. He committed murder, as is said, without interest, resentment, or anger. He used to fire at bricklayers, in order to enjoy the barbarous pleasure of seeing them fall from the top of the houses, on which they worked.

These last facts, fortunately very rare, show us that this detestable propensity is sometimes altogether independent of education, of examples of seduction or habit, and that it has its source solely in a bad organization. In fact, there are sometimes committed crimes so barbarous, with circumstances so revolting and disgusting, that it would be difficult to explain them in any other manner. Prochaska† relates that a woman of Milan used to lure children to her house by flatteries, kill them, salt their flesh, and devour them daily. He also cites the example of a man, who, in the indulgence of this atrocious propensity, killed a traveller and a young girl, to devour them. I have already mentioned the daughter of a cannibal, who, though educated at a distance from him, partook, from an early age, of this savage passion.

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* Historie de France, tom. ii. p. 59. † Opera Minora, tom. II. p. 98.

We cannot deny, then, that certain individuals have propensities to crimes, and even to those of the most atrocious character. Helvetius himself, the great antagonist of the innateness of the qualities of the mind and soul, is obliged to allow "that there are men so unfortunately constituted, as never to be happy, but in doing deeds which will send them to the gallows." Cardinal Polignac,* also speaks of men "born vicious, for whom crime has actual charms, and who are borne along by a furious passion, which obstacles only irritate." †

Professor Bruggmans, of Leyden, showed the skull of a leader of Dutch robbers, who had precipitated several persons into canals, for the sole gratification of seeing them struggle with death. "What can they do with me," he said on his trial; "am I not an honest man?" Schinderhannes and his accomplice took the greatest pleasure in telling the story of their crimes, and their eyes would sparkle during the recital. Every circumstance calculated to heighten the effect, was dwelt upon with the most intense delight. There have been some, who, at the very moment of their execution, when calling up to their recollection the pleasures in which they had reveled during life, have boasted that none have equaled those produced by the exercise of cruelty.

If any of my readers deem this portrait of man too deeply shaded, let them retrace the whole history of ancient and modern nations. Is there a single spot on the globe, that has not been reddened with human blood? Let them read the history of God's chosen people; the history of the Romans; the discovery of America; — let them follow the Spaniards to Cuba, to Mexico and Peru; — let them open the history of Inquisitions, and of the religious wars; — let them call to mind the Sicilian Vespers, St. Bartholemew's day, and the French revolution. Every where we tread on bat-

* De l' Esprit, p. 578.

† Anti Lucrece, trad. par. M. de Bougainville, Louis, 1754, p. 184.

tle-fields; every where we encounter funeral piles, wheels, and a thousand instruments of torture invented to abridge man's life. What an immense diversity of machines of destruction and death fill our arsenals! In fine, is not military glory ever placed above all others?

If you would see, in all his nakedness, the man whose bosom harbors the most atrocious passions, observe him when the very multitude of his crimes renders every sort of disguise superfluous. Look at him who hires the midnight assassin, or at the assassin himself, who barters his stabs for gold, and makes a business of destroying his neighbor's life; at the poisoner, and at those robber chiefs, surrounded by the most ferocious wretches, whom they lead to rapine and murder. Especially observe those miscreants, born with the thirst of blood, when seated on the throne, where no law can reach them, and no considerations whatever check their unbridled fury. Behold Caligula, cutting out the tongues of innocent people, throwing them to wild beasts to be devoured, forcing parents to assist in the execution of their children, giving the unfortunate wretches their choice of the wheel or the rack, and amusing himself with their agony, summing up his rage in one wish, that the Romans had but one neck, that he might decapitate them at a single stroke, feeding wild-beasts, kept for the shows, on living men, and whose strongest wishes were for famine, pestilence, conflagration, earthquake, and the loss of an army. Look at Nero, poisoning Brittanicus, murdering his mother, and the husband of the woman he wished to violate; passing the night in the streets, with a rabble of unbridled youths, fighting, robbing and killing: sacrificing to his fury his own wife Octavia, Burrhus, Seneca, Lucan, Petronius, and his mistress Poppæa; setting fire to the four corners of Rome, and then ascending an elevated tower, to enjoy the terrible sight at his ease, with the wish that he could see the whole world on fire; covering the Christians with wax and other combustibles, and burning them by night, that they might serve for lamps; laying a plan to murder all the gover-

nors of provinces, all the generals of the army, all the exiles and all the Gauls in Rome; to poison the whole senate at their meal, to burn Rome a second time, and, at the same moment, turn the wild beasts reserved for the shows, into the streets, to prevent the people from extinguishing the fire. Behold a Louis XI., the ungrateful, unnatural and rebellious son, whose father died from very fear of being killed by his own son; who, formed by nature for a cruel and implacable tyrant, wished to reign only by terror; and looked on France as a meadow, that he might mow every year, and as close as he pleased. Few tyrants have slain more citizens by the hands of the executioner, and the most refined methods of destruction. The chronicles of the time reckon four thousand subjects, executed publicly or privately, in his reign. Dungeons, iron cages, and chains, that loaded the victims of his barbarity, are the monuments he left behind him. While criminals were put to the torture, he stationed himself behind a lattice, &c. &c. Nothing but gibbets were to be seen around his palace, and he personally assisted in the execution of his vengeance. When the Duke of Nemours was executed for high treason, he caused the children of this unfortunate prince to be placed upon the scaffold, that they might be sprinkled with the blood of their father. They descended covered with his blood, and in this state were conducted to Rochelle, and put into scuttle-shaped dungeons, where the cramped condition of their bodies operated as a perpetual torture. Forever covered with relics and images, and wearing a leaden figure of Our Lady in his bonnet, he asked pardon for his murders, and then proceeded to commit new ones. Look at Sylla, Tiberius, Domitian, Marcus Cains, Aurelian, Caracalla, Septimius Severus, Henry VIII., Catherine de Medicis.

It would take years to enumerate the scenes of horror, which the earth has exhibited; and those, who would know the hearts of ordinary men, must transport themselves into times when there existed no restraint on the

passions. Who is ignorant of the horrible scenes that have stigmatized the French revolution? Who has not heard the names of Rossignol, of Pethion, of Marat, of Chalier, of Robespierre, of Danton, of Carrier, of Henriot, of Collot d' Herbois, of Fouquier, Tinville, &c.? Think of the murders, that are every day committed with all the refinements of cruelty, in spite of education, morality, religion, and the laws. When, too, will the barbarous and infamous custom of duelling cease to be authorized? Who, now, will dare to maintain, that there is not in man an innate propensity, which leads him to the destruction of his own species? Where is the creature, that evinces more ferocity towards all other animals, not excepting his fellows, than man?*

Disposition to Murder, joined with Mental Imbecility.

To show, further, that this disposition may act, independently of other qualities or faculties, I present the following examples, where it was manifested, notwithstanding an extreme feebleness of all the other faculties and qualities. An idiot, after killing his brother's two children, went and told him of it, as something to laugh about. Another, who had murdered his brother, was desirous of burning the body with parade and ceremony. A third, after killing a hog, thought he could murder a man, and he actually did. A fourth, without the slightest motive, killed a child.† The dreadful cases of this kind, that so frequently happen, shows the necessity of imposing the strictest surveillance on idiots that have manifested mischievous propensities.

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* In vol. 1. sect. iv. I have shown, that the existence of a propensity does not necessarily suppose its action, nor exclude moral liberty.

† Vol. 1. p. 277.

Disposition to Murder in Insanity.

At Berlin, M. Mayer, surgeon of a regiment, showed us, in presence of M. M. Henn, Finney, Hufeland, Goericke, and others, a soldier in whom sorrow for the loss of a wife whom he tenderly loved, had greatly enfeebled the physical powers, and induced excessive irritability. At length, he had every month an attack of violent convulsions. He was sensible of their approach, and as he felt, by degrees, a violent propensity to kill, in proportion as the paroxysm was on the point of commencing, he was earnest in his entreaties to be loaded with chains. At the end of some days, the paroxysm and the fatal propensity diminished, and he himself fixed the period at which they might set him at liberty without danger. At Haina, we saw a man, who, at certain periods, felt an irresistible desire to injure others. He knew this unhappy propensity, and had himself kept in chains till he perceived that it was safe to liberate him. An individual, of melancholic temperament, was present at the execution of a criminal. The sight caused him such violent emotion, that he at once felt himself seized with an irresistible desire to kill, while at the same time he entertained the utmost horror at the commission of the crime. He depicted his deplorable state, weeping bitterly, and in extreme perplexity. He beat his head, wrung his hands, remonstrated with himself, begged his friends to save themselves, and thanked them for the resistance they made to him. M. Pinel has also observed, that in furious madmen there is often no disorder of the mental faculties. Hence he likewise declares himself against the definition which Locke has given of mental alienation. He speaks of an individual, whose mania was periodical, and whose paroxysms were regularly renewed after an interval of several months. "Their attack was announced," says he, "by the sense of a burning heat in the interior of the abdomen, then in the

chest, and finally in the face; then redness of the cheeks, an inflamed aspect, a strong distension of the veins and arteries of the head; then fury, which led him, with irresistible propensity, to seize some weapon, and kill the first person who came in his way; while, as he said, he constantly experienced an internal contest between the ferocious impulse of his destructive instinct and the deep horror inspired by the fear of crime.—There was no evidence of wildness in the memory, imagination, or judgment. He avowed to me, during his close confinement, that his propensity to commit murder was absolutely forced and involuntary; that his wife, notwithstanding his affection for her, had been on the point of becoming its victim, and that he had only had time to warn her to take to flight. All his lucid intervals brought back the same melancholy reflections, the same expression of remorse; and he had conceived such a disgust for life, that he had several times sought, by a final act, to terminate its cause. "What reason," said he, "should I have to murder the superintendent of the hospital, who treats us with so much humanity? Yet, in my moments of fury, I think only of rushing on him, as well as the rest, and burying my dagger in his bosom. It is this unhappy and irresistible propensity which reduces me to despair, and which has made me attempt the destruction of my own life."* Another madman experienced paroxysms of rage, which were periodically renewed for six months of the year. The patient himself felt the decline of the symptoms toward the end of the paroxysms, and the precise period when they could without danger restore him his liberty in the interior of the hospital. He himself requested to have his deliverance deferred, if he felt that he could not yet govern the blind impulse which led him to acts of the greatest violence. He confessed, in his calm intervals, that, while the paroxysm continued, it was impossible for him to

* L. c. p. 102.

repress his fury: that then, if any one appeared before him, he imagined that he saw the blood flowing from that man's veins, and experienced an irresistible desire to taste it, and to tear his limbs with his teeth, to render the suction easier.*

The truth of the following very extraordinary case of madness, is warranted by the Mercury of Swabia. "A carrier, belonging to the bailiwick of Frendenstadt, who had quitted his family in perfect health, was suddenly attacked by a paroxysm of furious madness, on the route between Aalen and Gemunde. His first insane act was to shut himself up in the stable with his three horses, to which he gave no fodder; and when departing he harnessed only two of his horses, accompanying the carriage, mounted on the other. At Moglengen he abused a woman: at Unterbobingen, he alighted, and walked before his horses with a hatchet in his hand. On the route between this last place and Hussenhofen, the first person he met with, was a woman whom he struck several times with his hatchet, and, left her lying in a ditch by the road side. Next, he encountered a lad thirteen years old, whose head he split open; and, shortly after, he split the skull of a man, thirty years old, and scattered his brains in the road, and after hacking the body, he left his hatchet and carriage, and thus unarmed, proceeded towards Hussenhofen. He met two Jews on the road, whom he attacked, but who, after a short struggle, escaped him. Near Hussenhofen, he assaulted a peasant, who screamed till several persons came to his aid, who secured the maniac, and carried him to Gemunde. They afterwards led him to the bodies of those he had slain, when he observed, 'It is not I, but my bad spirit, (*mauvais esprit*,) that has committed these murders.'"†

For the following narrative, I am indebted to the po-

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* L. c. p. 283.

† *Aristarque Francois* of Thursday, 13 April, 1820.

liteness of Dr. Zimmermann, of Krumback. "A peasant, born in Krumback, Swabia, of parents who never enjoyed very good health, twenty-seven years old, and a bachelor, had been subject from his ninth year, to frequent epileptic fits. Two years ago, his complaint changed its character, without any assignable cause, and ever since, this man, instead of having the epileptic fits, has been attacked with an irresistible inclination to commit murder. He felt the approach of the fit many hours, and sometimes a whole day, before its invasion, and at its first coming on, he begged to be secured and chained, that he might not commit some dreadful crime. 'When the fit comes on,' says he, 'I feel under a necessity to kill, even if it were merely a child.' His parents, whom he tenderly loved, would be the first victims of his murderous propensity. 'My mother,' he would cry with frightful voice, 'save yourself, or I must kill you.' Before the fit, he complains of being exceedingly sleepy, without being able to sleep; he feels depressed, and experiences slight twitchings of the limbs. During the fit, he preserves his consciousness, and knows perfectly well that, in committing murder, he is guilty of an atrocious crime. When he is disabled from doing injury, he makes the most frightful contortions and grimaces, singing or talking in rhyme. The fit lasts from one to two days. When it is over, he cries out, 'Now, unbind me. Alas! I have cruelly suffered, but I rejoice that I have killed nobody.'"

A pregnant woman was seized with an irresistible inclination to kill her husband and eat him. She did so, and even salted the body, that she might feed upon it for many months.

M. Fodéré, also, quotes examples of the great activity of the disposition to murder in insanity, and, among others, of a young man, twenty-five years old, who had often raised his parricidal hands against his respectable father, and who, on this account, was put into an insane hospital. He was always neat in his person, and appeared quite intelligent, "which induced me," says Fodéré, "to try

to excite in him some feelings of remorse, but he would never admit the enormity of his crime, and he would frequently look at me, as if measuring the chances of a successful attack; his manners, all the time, however, being extremely polite."

Never has this propensity a more atrocious character, than when accompanied by visions. Pinel cites the case of a monk, alienated by devotion, who thought he had one night seen the Virgin Mary surrounded by a choir of angels and happy spirits, and received an express order to kill a certain person, whom he considered as an infidel: he would have executed this commission, had not his actions and manner betrayed him. The same author speaks of a credulous vine-dresser, who was so violently shaken by the sermon of a missionary, that he thought himself and his family damned to everlasting pains, if he did not save them by the baptism of blood, or martyrdom. He therefore first endeavored to murder his wife, who escaped with difficulty; he then killed two of his children, to procure them eternal life; and, when confined to prison before trial, he cut the throat of a criminal in the same room with him: still with the intention of doing some expiatory act. His insanity being proved, he was ordered to be shut up in the Bicêtre for life. Long solitary confinement exalted his imagination, and because he had not been executed, he fancied himself the Almighty; or, according to his own expression, the fourth person of the Trinity, sent to save the world by the baptism of blood. Having been confined for ten years, he became tranquil, and was permitted to converse with the other convalescents in the court of the hospital. He passed four years in this way, and his health seemed restored; but he was again suddenly seized with his former superstitious and sanguinary ideas. The day before Christmas, he conceived the project of offering up an expiatory sacrifice, by killing all who might fall under his hands; he consequently got possession of a shoemaker's knife, with which he gave the keeper a thrust from be-

hind, which fortunately slipped over the ribs; he then cut the throats of two other lunatics, and would have continued his homicides, had he not been overpowered and prevented.

It is not improbable that some such cause had a share in the assassination of Henry IV. Ravaillac belonged to the order of the FEULLANS, but his notions, *visions*, and extravagances drove him from the cloister. Indicted but not convicted of murder, he escaped punishment. Some fanatical preachers were then teaching, that it was permitted to kill those who endangered the Catholic religion. Ravaillac, whose character was naturally of a sombre, bilious cast, eagerly embraced these abominable principles, and resolved to assassinate Henry IV., whom his heated imagination represented as a protector of heresy, and about to make war with the Pope. He left Angouleme six months before the crime, with the intention, he said, of speaking with the king and not killing him, unless he failed of converting him. He presented himself at the Louvre several times, when the king was to pass out, was always repulsed, and finally went back. For some time he was less afflicted by the visions that disturbed him, but near Paques, he was tempted more strongly than ever to execute his design. He came to Paris, stole from a shop a knife, that appeared suitable for his execrable project, and again went back. When near Etampes, he broke off the point of his knife between two stones, in a fit of repentance, and almost immediately re-sharpened it, returned to Paris, and followed the king for two days; finally, his purpose constantly gaining strength, he accomplished it, 14th May, 1610.

What, in such cases, is the cause of temptation? It is a state of disease and extreme irritation, or, at least, an excessive and fatal activity, of the organ of murder. Examples of this kind are so frequent, that I can hardly conceive, how jurists and legislators should have continued, to the present moment, to be so little acquainted with this subject. This is why I considered it a matter

of duty, to treat it so particularly in the third section of the first volume; and so much importance do I attach to it, that I cannot refrain from requesting my readers to re-peruse that section. Every day, I see treated, as atrocious crimes, actions which, in fact, are only very unfortunate events, resulting from mental alienation. Let me here repeat some cases that I have related in the above-mentioned passage.

I know a woman, twenty-six years of age, now well, who was attacked with the same disease: she has had successively all the symptoms of this disease: she experienced, especially at the times of the periodical evacuations, inexpressible torture, and the fearful temptation to destroy herself, and to kill her husband and children, who were exceedingly dear to her. She shuddered with fear, as she pictured the combat which took place within her, between her duty, her principles of religion, and the impulse which urged her to this atrocious act. For a long time she dared not bathe the youngest of her children, because an internal voice constantly said to her, "Let him slip, let him slip." Frequently, she had hardly the strength and the time necessary to throw away a knife, which she was tempted to plunge in her own bosom, and that of her children. Did she enter the chamber of her children or husband, and find them asleep? the desire of killing them at once assailed her. Sometimes she shut precipitately after her, the door of their chamber, and threw away the key, to remove the possibility of returning to them during the night, if she happened not to be able to resist this infernal temptation.

Those of my readers to whom a thorough examination of so important a subject, will not appear tedious, will permit me here to insert entire the account of a tragical event, relative to the subject under discussion. This account will not only furnish me with an opportunity of making many remarks, but it will be useful to physicians and jurists, as a guide and a standard for judging of the different degrees of alienation. The editors of the *Patriotic Journal of the Austrian Empire*,

have taken it from the fourth volume of the Annual Register of legislation and jurisprudence for the Austrian states, published by M. F. de Zeiller, aulic counsellor.

*Criminal case of H**, who assassinated two persons.*

On the 2d December, 1807, a woman, aged fifty, and her daughter-in-law, aged twenty-four, were fatally wounded at Trieste, in the pit of the theatre, during the performance of the play. The author of the deed came forward, exclaiming, "There are those who have murdered me," and remaining still, he quietly suffered himself to be arrested. The eldest woman received but one wound, but, in the opinion of medical men, it was mortal, and, in fact, it occasioned her death a few minutes after. On the other were discovered five wounds, one of which was dangerous, and another, mortal. She died at 3 o'clock next morning.

The murderer, whose name was H**, born at Trieste, aged twenty-seven, and a bachelor, was a ship-broker. In the summary examination, which he underwent immediately after his arrest, he answered to the first question, "that he was arrested for having cut off two women who had assassinated him." The officer, in arresting him, took away from him a manuscript very carefully prepared, in which the motives of his crime were detailed at length. He begged the officer to read it, loudly attested its truth, and even signed it. The facts gathered from his answers to the ulterior questions addressed to him by the court, were as follows. He had finished the manuscript the evening before. Having then experienced more severely than ever, the pains produced by his miserable destiny, of which the persecutions of the two women were the principal, he formed the plan of killing them. As he could not execute his design in the street, nor in their house, he went the next day to the theatre, but not seeing them where they were accustomed to sit, he waited for them outside the house.

When they arrived, he re-entered the theatre, gave them time to sit down, and opened the door of their box, and effected his purpose. "I never intended," he added, "to withdraw from the arms of justice, notwithstanding the ease with which I might fly by sea or land into Italy. God be merciful! I submit to whatever the court shall order." The circumstances of the assassination were confirmed the same evening by the young woman, who was mortally wounded, and by a person who was in the box at the time, and who, when the first blow was given, went out to call assistance.

The manuscript prepared by the murderer occupied four leaves, and was written in Italian. The ideas are connected, and the style flowing. It is entitled, "*Summary exposition of my life for the last eight years.*" We proceed to give an extract, omitting the frequent repetitions, and such circumstances as throw no light on the facts or the character of the author.

The frightful and almost unexampled position of the author, says the manuscript, originated with the elder of the two women, whom he killed. He has lived opposite to her for the last twelve years, and she has made him wretched by diabolical artifices of astrology. It is about eight years, since he inferred from the manner of Theresa, the daughter of the merchant with whom he often met her at the theatre and elsewhere, that she was deeply in love with him. He was unable to reciprocate her affection, because the impious woman, of whom he is going to speak, had deprived him of his reason, and hardened his heart. He sought to gain admission to the merchant's house, but was politely refused. To divert his thoughts from this subject, he left home in 1799, and went to Venice, Leghorn, and Florence. At the end of a year, he returned, but remained for a short time only, and then made a second tour into the provinces near Italy, in spite of all that was done, according to his own account, to prevent his departure by the father of Theresa, who bribed the inn-holders and shopkeepers, to make him acquainted with his daughter's

love for him. This merchant even tried to make him return, while he was on his way. Want of money was a source of some severe troubles to him, during this excursion. He once, for sixty hours, had nothing but a glass of water and a morsel of biscuit, and often passed the night in the open air. His body was extremely enfeebled. Two months after his departure, he returned, and, for four months, his parents, with considerable difficulty, supplied his wants. He was offered the place of clerk of a ship, whereby he made a voyage into different provinces of Italy, to France, Spain, Holland and Hamburgh. During this voyage, which lasted a year, he was exposed to storms, shipwrecks, pirates, and to every kind of danger. Finally, he was in partnership with a ship-broker in Trieste for three months and a half, and made considerable money, which, by his own confession, he spent in high living and all kinds of excess. He again tried short trips on foot, in order that he might live quietly, but he found no rest. "Thus," he cried, "have I lived for the last eight years, wretched and idle, while I should have been the father of a family, and obtained general esteem."

"But the almost incredible physical sufferings I endured in my travels, were nothing, compared to the frightful visions brought on me by astrological artifices, that have tormented me day and night ever since Nov. 16, 1805. Frequently I have dispersed them with the crucifix." The elder of the two women would appear to him sometimes, to advise him in a friendly manner not to struggle with his passions, and sometimes to overwhelm him with the painful recollection of the sufferings he experienced during his travels. At another time, she loaded him with reproaches for corresponding with other women. The young woman would appear to him in the most voluptuous attitudes, which inflamed his imagination to the highest degree, and produced the usual consequences of such visions, too often fatal to the health of young men.

This young woman inspired him with an inordinate

passion, and he sought every opportunity to see her at the window, in the street, or at the public shows, by placing himself near her seat. He has frequently heard the elder woman converse about him. She exclaimed one day, for instance, "I will not fear the devil." He was become the slave of these women; they knew all his thoughts and every one of his acquaintances. They had so persecuted him by their apparitions, or their emanations, that he had lost considerable blood, and his strength was much exhausted. He said, in concluding, "it is a most black and terrible crime, and deserves, in heaven and on earth, the severest vengeance."

On addressing him some questions, relative to certain obscure passages in his memoir, and to what he had done since it was written, he replied, that, by astrological artifices, he meant the sorceries of the women who made him suffer like a martyr. In saying that the two women had murdered him, he meant that they had deprived him of rest, and that the younger had inspired him with a violent passion, which abated a little during his travels, but gained fresh strength on his return, and had entirely broken his constitution. The conclusion of the manuscript had relation to the vengeance he wished to execute on the two women, who, by their witchcraft, had deprived him of his senses. He began his memoir in August, 1807, and after frequent interruptions, finished 1st December, when he immediately resolved to kill the two women the next day, that he might be delivered from his torments. For this purpose, he thought of buying a knife instantly, but abandoned the design. The next morning, he reconsidered the matter, bought a knife, and sharpened it. He then went on Change, transacted some business, and dined at his parents: after which he took a walk, and meditated on the consequences of the act, sometimes renouncing his design, and again returning to it. He entered a wine-shop, and drank a pint of wine; he then played at a café, and at half past six o'clock, he went to the play. As it was still early, however, he drank another pint of

wine at a wine-shop, returned to the play, where he accomplished his design, as he acknowledged on his first examination. He believed, he added, that he had stabbed each woman but once. He had never spoken to them. He had sometimes done business with the husband of the elder woman, but never had courage to ask admission to his house. He had composed his manuscript, in order that he might leave to the world, after his death, a monument of his singular destiny, and had undertaken to justify the deed, which, after a long internal struggle, he had committed in a paroxysm of irresistible fury and violence, though conscious of what he was about at the moment.

So far, the prisoner answered, positively and rationally, the questions that were addressed to him. Two physicians, who, by way of precaution, had been called to attend the summary examination, declared that, after the clear and rational answers of the accused, they held him to be of sound mind, and that he could not have been mad. But, in a subsequent examination, the accused made no other reply to the questions, that were put to him for the purpose of penning down, in relation to the act, than that "he was mad, and lost his senses; he could not answer, because he was mad; he could no longer say his prayers, because he was mad."

This conduct of the accused, on the second examination, appeared to the court to be nothing but obstinacy, or a mere feint; for on the first examination, which took place but a little while before, he was calm and collected, and had shown but little bad humor. Consequently, they read to him, that he might not sin ignorantly, the 363d and 364th articles of the first part of the Code, enacting that, whoever, by feigning insanity, tries to deceive the Court, or obstinately persists in not answering the questions addressed him, shall be punished by fasting and whipping. During the reading, the accused seemed to be violently agitated; he changed color, and wept profusely, but answered none of the questions that were put to him. The Court then referred the case to eight

professional men, physicians and surgeons, gave them the memoir of the accused, as well as a copy of his verbal answers, and proposed to them the two following questions, to examine and answer.

I. Is the accused really mad, or is he feigning madness?

II. Can his act be imputed to this cause?

The professional men, in their report, considered the allegations of the accused, relative to his physical constitution, to be devoid of foundation. They declared that he had no defect of body, that his limbs were sound, and that he had the requisite quantity of blood. They added, that the present disorder of mind was only a feint; but they thought that the accused, in consequence of the tumult and derangement of his imagination, had been insane, and that during the paroxysm of insanity, he had not acted maliciously and with a design to harm, but committed the act in a moral state, to which crime could not be imputed.

The Court again summoned the accused, in order to examine him as to his intention in committing the double murder. He answered, "It may be clearly seen, from my own picture of my life, what was the motive of this action." Then reflecting a few minutes, he continued, "You may ask me what questions you please, I can only answer what I have already answered, —that I have lost my senses."

As, notwithstanding all the representations that were made to him, it was impossible to get any answer from him, they put a stop to the examination, and gave him the space of three days, the time fixed by law, to prepare his defence. During this interval, several witnesses gave some very precise information, relative to the intellectual faculties of the accused. The prisoners, who were near him and the jailer, deposed that he conducted peaceably, spoke to no one, and appeared to be always musing. People, who had formerly employed him, described him as a regular, attentive, serious and very abstracted young man, but, at the same time, head-

strong, high-spirited, and particularly vain of his person. His father-confessor and parents, said, that he had always enjoyed good health, and was addicted to no excesses; that he was of a quiet character, and was kind to his parents. When the three days of preparation had elapsed, and he was asked by the court for his defence, he answered, "I am mad and have lost my senses, and know not what I did." Two days after, a clergyman sent a note to the court, certifying that four or six days after the assassination, the father of the accused came to him to confess, and that, after confession, he observed to him that his son's conduct had always been regular and quiet, indeed; but, from his earliest youth, he had evinced some signs of madness about the period of the new moon, such as swearing and making a great racket in the house; and that at certain times he had left home, and undertaken journies more or less long. As the father of the accused had been already heard in his oral deposition, the court made no use of this certificate.

Opinions being divided, after the inferior and superior tribunals had deliberated on the question of the accused's responsibility for crime, the superior tribunal decided that all the proceedings at law should be communicated to the faculty of medicine at Vienna, in order that they might fix upon the points, on which the professional men of Trieste should give their opinion, so that they might be enabled to judge, with a full knowledge of the case, whether the accused committed the act in his right mind, or in a state of mental derangement.

The faculty concluded, that the three following questions should be proposed to the professional men at Trieste.

1. Does it appear, from the trial and other circumstances that have been noted, that the accused, during or after the assassination, has been mad?

2. If it is thought that madness took place, at one or the other of the above-mentioned periods, by what facts and circumstances can it be proved?

3. What idea do the professional men at Trieste attach to the term mania?

The faculty also expressed the opinion in this report, that the accused had never been mad, neither after, before, nor during the murder. He was not so before it, because none of the actions and circumstances mentioned in the verbal process, indicate it; because the physicians who assisted in the first examination, declared that he was in his right mind, and those who next examined him said his madness was feigned; and because the declaration of the prisoner, that he was mad and had lost his senses, proves precisely the contrary; since a person really insane, never proclaims himself to be so. Neither does there appear from the trial a single action or circumstance, by which it can be legally proved that the accused was mad, either before or after the murder. Let us barely call to mind the facts in the case, as they occurred. A young man, of an inferior condition in life, headstrong, full of self-love, but otherwise quiet, industrious, and healthy, falls in love with a pretty young woman, who lives on the opposite side of the street. For two years, he seeks every occasion to see her, and at the play, always stations himself near her box, that he may have a better view of her. His passion reaches the very highest pitch, and, without speaking to her, without making her acquainted with his feelings, he forms the design of killing both her and her constant companion; because it seemed as if he never should succeed with her, and he was desirous of being delivered from his sufferings. Nothing that appears on the trial, relative to his conduct on the day of the murder, as well as the day before, presents the least indication of madness, or mental impotence; on the contrary, every thing indicates reflection and the use of reason. The accused plans the assassination, and chooses the time, place and means for executing his purpose and insuring its success; his resolution wavers; he has a long struggle with his feelings, because he knew the consequences of his undertaking; and to shield himself from these conse-

quences, he takes care to carry with him, on the day fixed for accomplishing his object, a manuscript just finished, which should justify his conduct. He attended to his usual business on Change, dined with his parents; played at the café, drank twice, a moderate quantity of wine at a wine-shop, and all this took place without any one observing in him the slightest derangement. He goes to the play, and comes out because it is too early; he returns, and being well convinced of the presence of the two women, enters their box without injuring the door, and promptly committed the double murder. Neither are there any traces of alienation of mind in the previous conduct of the accused. All who had employed him, so far as they had been heard from, have described him as a regular, industrious person. He made no foolish or improper attempts to introduce himself into the house or company of the two women. It is true, the accused executed his purpose in the theatre and in the presence of every body, but this nowise proves his madness, for he confessed himself, that he was unable to perpetrate the deed any where else. No conclusion can be drawn from the fact, that he did not attempt to escape; for, besides that he could hardly expect to get clear, he probably trusted to the memoir he had prepared, for his justification. This memoir is methodically composed, and is all written on the same kind of paper and with the same kind of ink; consequently, it has been composed within rather a short space of time. On the day of the assassination, the accused takes with him this paper, which is to serve in his justification, and to the same motive we probably owe its existence. If the accused really writes, that the elder of the two women had bewitched him, it does not indicate madness, but a superstition, still quite common in Italy among people of his condition. The faculty concluded therefore, from all these circumstances, that there was no evidence that the accused was laboring under total or partial insanity. Nevertheless, in case his insanity should be positively proved, the faculty are

of opinion, that he could not, with safety, be let loose on society; since the difficulty of determining whether his disease is cured or not, would be increased by the circumstance, that no trace of mental alienation was discovered in him, previous to the terrible murder he committed.

The questions prefixed by the faculty to their opinion, were sent to Trieste, and the two tribunals were enjoined to deliberate anew on the affair, after the professional men should have given their opinion, and submit the result, with all the proceedings, to the supreme judicial court.

We now proceed to give an extract from the opinion of the Trieste physicians, omitting the numerous quotations by which it is supported.

The accused was laboring for a long time under a profound melancholy, which transformed the phantoms of imagination into real objects, deprived him of his reason, and finally degenerated into furious melancholy. In one of these paroxysms of fury, he committed the double assassination. His nervous system is extremely irritable, and he has the sanguine-bilious temperament; so that the slightest cause gives rise to the most violent excitement of the feelings. The outward appearance of this person indicates melancholy, and this indication is strengthened by his quiet conduct, his vivid imagination, and that constant restlessness, which, without any plausible reason, has kept him moving about from one place to another. One circumstance that may have contributed, in some measure, to increase this melancholy disposition, is, that the accused, having taken the itch when sixteen years old, was not properly cured by the use of sulphurous ointments. The action of this morbific matter repelled upon the nervous system, already very irritable, probably engendered that form of mental derangement, called by physicians, *Melancholia Narcissi*, in which the patient has a singular regard for his own person, and believes himself an object of universal adoration among the women. Several witnesses have said

that such was the state of the accused. His melancholy explains his discontented state, his unceasing restlessness, and his fondness for journeying without any object in view, and destitute of the necessary means. For this reason, too, he was able to bear extreme cold, heat, and nakedness, without material injury to his health, which, physicians say, is peculiar to melancholy temperaments, when their imagination is occupied with the images they have created. Besides, the accused lived opposite the two women, which operated so powerfully upon him, that their images were constantly before his eyes; and thus new aliment was furnished to his excited imagination. Hence the nocturnal visions that he took for realities, and his indomitable passion for the younger woman, which changed his *Melancholia Narcissi* into a *Melancholia Amorosa*. It matters little, that the accused has properly performed the duties of his condition, and has done nothing indicative of mental derangement. We know that it is one of the peculiar characters of monomania, that the patient, on every other subject, follows the suggestions of sound reason. The frequent use of hot drinks, and particularly the self-abuse, occasioned by his heated imagination, in which the accused habitually indulged, so contributed to increase his insanity, according to the numerous observations and testimony of several physicians, that, on the slightest cause, it was converted into fury; and its indications on the accused, may be seen in the want of sleep, love of solitude, and the almost continual singing in his ears. In such a maniacal disposition, the accused wrote the history of his life. He portrays his sufferings, whether real or imaginary, with much vividness of feeling, and we can conceive how, his imagination becoming extremely heated, towards the end of his narrative, he resolved to kill the apparent authors of his torments, and how, in a moment of fury, he accomplished his design. The preparation of the instrument, the choice of means to effect his purposes, does not prove that the mind of the accused was not in a state of derangement. We

know, in fact, that a maniac acts with regularity and order, in every thing that concerns his insanity, and the attainment of the object in view. The most common observation teaches, that people in severe fevers, whose reason has wholly left them, will invent the most ingenious means for committing suicide, on which they have determined. From these observations, the professional men of Trieste conclude, that the accused first suffered from melancholy, which was afterwards converted into insanity, and that, in a paroxysm of insanity, and in a moment of total absence of reason, he committed the murder. Immediately after, the paroxysm ceased; the violence of his passion and his vengeance being satisfied together, and the sight of blood affecting his feelings, the tumult of his imagination was calmed, and the equilibrium of his mind restored. Thus are explained the quietness and indifference of his conduct from the time of the first examination.

The interval of tranquillity that succeeded, and which is quite common in insanity, is the cause of the reserve and the laconic answers of the accused at the time of his last examination, and of his weeping on account of his present situation. These circumstances strengthened our belief in the previous derangement of his mind. The medical men concluded by observing, that having again examined the accused, prior to finishing their report, they found him in a state of apparent tranquillity. It seemed that a cutaneous eruption, which had broken out over his whole body, had contributed to this result. The acrid matter, which, before, rendered his nervous system so irritable, being disposed of by this outlet, the wild looks of the accused, and his weak, small, nervous pulse, would indicate that he had always a disposition to insanity. For this reason, they would not hazard the opinion, that the accused was entirely cured of his moral disease.

Notwithstanding this opinion of the physicians, the inferior criminal tribunal, according to the utmost rigor of the law, pronounced sentence of capital punishment

upon the accused. The superior tribunal, guided by the opinions of the physicians, decided that the case was not a matter for criminal process.

The supreme judicial court transmitted the new declaration of the Trieste physicians to the faculty of medicine in Vienna, in order that they should pronounce a definitive opinion. The faculty began by laying it down, as a necessary principle, that, in cases of legal medicine, we are to decide on the nature of the act, not from the presumption, or simple possibility, of what might happen in analogous cases, but from the facts proved, and the accessory circumstances which may have determined the act, and which are ordinarily set forth in each particular case. Consequently, after examining the new declaration of the Trieste physicians, they concluded to persist in their first opinion, viz. "that, from the documents they had inspected, there was no proof that H** was insane at the moment of committing the double murder." The following are the motives of this assertion.

1. The faculty of medicine, not feeling warranted, for want of clear facts and accessory circumstances, in its first opinion, to admit the alienation of the accused before, during, or after the murder, as proved, could not now alter its decision, because the new documents presented no new fact, nor clear circumstances, that could furnish any certain and positive data upon the mental derangement of the accused.

2. The remarks of the Trieste physicians, on the physical constitution of the accused, on his physiognomy, and the itch which he had when sixteen years old, or more than thirteen years ago, and which continued two months, and was cured by external applications, simply proves, that, under all these circumstances, there is a possibility of the alienation which sometimes results in different subjects, as is shown by the numerous quotations adduced in support of this opinion, but it does not follow that it exists in the person whose case we are treating.

3. In fact, the reality of alienation could not, on the principles of legal medicine, be judicially proved, except by certain manifest signs, characteristic of this state of mind; and in the present case they have not cited, nor have they indicated, very positively a single one.

4. One of the Trieste physicians says, in set terms, in the opinion p. 414, that the family of the accused never observed in him the least signs of alienation. Besides, none of his companions who have played with him, nor the woman who sold him wine in the shop, immediately before the murder, remarked the slightest trace of mental alienation. This same physician observes, in conclusion, that it was impossible to recognise the madness of the accused, without having been informed of it beforehand, which, in other words, is equivalent to saying, that he would be considered mad by those only who were already prepossessed with the belief that he really was so; for the alienation, not being manifested by any external sign, it was not perceptible to one not pre-occupied with the idea.

5. The memoir, narrating the history of his life, and composed with some effort of reflection, and which, as he himself says, was to serve for his justification, cannot be considered as a trust worthy document, as well upon the principle of law, that *nemo testis in propria causa*, no one can be witness in his own cause, as because the truth of the facts there related has not been diligently investigated.

6. Finally, in the two interviews of the Trieste physicians with the accused, and in the verbal process that has been drawn up, there occurs no trace of mental derangement, previous or present. The physicians have even unanimously agreed, that the accused is not at present in a state of alienation. It is to be regretted, that when the Trieste physicians examined the prisoner, and conversed with him, they so superficially followed the train of ideas, necessary to establish the madness of the accused, and that, in breaking off the interview at the moment when it was becoming most interesting, and,

perhaps, in a physiological view, most instructive, they should have suffered the thread to escape, which chance had presented them, to find their way through this labyrinth; since the accused, by the disorder of his motions, and change of features, made known the embarrassment and disturbance, under which he was laboring.

The supreme court, after repeated deliberations, pronounced the following decision. "The indictment found against H * * for murder, is dismissed, for want of sufficient proof of his responsibility for crime. In the mean time, that the public safety may not be jeopardized by the accused, he will be handed over to the police for perpetual confinement. He will also pay the costs of the process."

Conformably to the dispositions of the 455th article of the first part of the penal Code, conferences have been held with the police court, in execution of the sentence, and the accused has been placed in a house of detention.

Excepting the clause relative to the costs, the sentence is perfectly adapted to the nature of the action, and is honorable to the intelligence and sagacity of the judge. The faculty of Vienna, with remarkable shrewdness, advised his detention for life, in case madness should be proved, because, in such cases, nobody can warrant a cure. It may indeed be admitted, as generally true, that relapses are to be feared where there is a natural and very strong disposition to the disease in the very organization itself.

I think, with the physicians of Trieste, that H ** should be considered insane. What motive could he have, in complaining of the loss of his health, and of his physical exhaustion, while he was full of strength and health, if he were not laboring under a total mistake as to his condition? If his mind had been right, would he not have seen that his appearance would instantly give the lie to his assertion? The statement made by his father to his confessor, that, from his infancy, he had committed acts of madness, and was in the habit of quitting his father's house, does not prove, indeed, that he

would afterwards become mad; but it does prove the existence of an extreme natural irritability, and a very strong disposition to see visions, and conjure up phantoms, when he experienced any violent agitation of the feelings.

The choice of the object of his love, also, proves his predisposition to madness. There is some sense in the saying, that he who falls in love with a queen, and, to use a common expression, becomes mad, has not only *become* so, but was already in that condition. H * * declared that his love was the effect of the sorceries of these two women.

The faculty of Vienna rely on the declaration of the professional men present at the first examination, who pronounced the murderer to be in his right mind, and his madness to be feigned. They rely also on the testimony of the individuals, who had played with the murderer, and of the servant in the wine-shop. But why, in a discussion involving a man's life, do the faculty of Vienna refer to people, who allege nothing in support of their opinions, in preference to the assertions of the Trieste physicians, founded on experience, which teaches that a person may be insane in one respect, and sane in every other? Have these physicians answered the public expectation, by indulging in vain subtilties, and a blind zeal against vice? Are we not taught by daily experience, as the Trieste physicians have observed, that the insane are accurately conscious of the disorder of their sensations and ideas? Do the faculty of Vienna believe they have refuted these facts, by saying, that it is only a vain display of learning to mention them?

They conclude that the madness was feigned; but whoever designs to feign madness, must be well acquainted with it. But the natural history of this state being known to but a very few physicians, how can it be supposed that this young man, extremely ignorant in this respect, should be acquainted with it? The person who feigns, is not contented with declaring his dis-

order, —with saying, "I am mad, and have lost my senses;" he seeks to make it be believed, by wild and extravagant conduct. The murderer does not say, that it *seems* to him that he has had visions, but says that he is miserable and in despair, because he has *really* had them. In other cases, where there cannot be the slightest suspicion, that the insane are anxious to shield themselves from a sentence of death, we often hear them complaining of their madness in the accents of affliction and despair.

I admit that a criminal act, committed in a lucid interval, renders the person responsible; but, in regard to people who are subject to periodical fits of madness, we cannot be too cautious in deciding, whether or not, the act was committed in a state of perfect mental soundness. In cases of this kind, the decision is not difficult to those who possess the necessary information. The faculty of Vienna say, in support of their opinion, that the murderer chose the time, place, means, and occasion, most suitable for the execution of his design. But is not the very same thing done by those who commit suicide, destroying their life under the influence of the most terrible of all the forms of mental alienation? Do not the faculty of Vienna know that the most furious madmen, in the middle of their most violent paroxysms, act in a consistent manner?

The motive of H**, in assassinating the two women, only proves his madness. He was persuaded that they had bewitched him and made him wretched. Certainly, it cannot be said that he murdered the object of his love in a fit of jealousy, and with what could he reproach her companion?

H**, in manifesting his mental anguish by the tumult and disorder of his motions, did not show that he was not mad; for the most raving madmen are often tortured by the most bitter and unjust remorse. A woman got into violent rage every morning; she broke every thing in pieces, and abused whoever came near her. When put in a straight waistcoat, she calmed down. She re-

membered very well every thing she had done, and was so full of repentance, that she believed herself deserving the severest chastisements.*

Unfortunately, many insane people may be condemned, from the fact that, during the examinations, they speak and act in a rational manner; but the time of the examination is not that of the criminal action. Besides, the insane are not only consistent in their madness, as we have shown, but cases are daily occurring, when the mental disorder is manifested only on a single point. So long as the diseased point is not touched, we cannot observe the least trace of madness in conversations that turn on other subjects. In a species of periodical madness, where the patients are irresistibly impelled to commit murder, Pinel considers it a diagnostic symptom, that they are conscious of the atrocity of their action, and show no derangement of intellect, or imagination.

Finally, whatever the faculty of Vienna may say to the contrary, the extreme mental disorder of H** is proved by the fact, that he chose the theatre wherein to execute his design; that he made no effort to escape, and manifested no disposition to save himself. No sane man acts in this manner, unless excited by some sudden freak of unruly passion. But that H** was not at all influenced by anger, or a transport of passion, is evident from the fact of his dining peaceably, and attending to his business as well as ordinarily. The act of writing down the motives of actions, often precedes desperate resolutions, even in cases of suicide; and here is furnished a conclusive proof of the torments experienced by H**, and of his conviction that he had a right to avenge himself on both the malicious enchantresses.

Finally, it appears to me, that the judge ought not entirely to have neglected to take into consideration the prejudices that may have determined the crimes. They are among the moving springs that give rise to an ac-

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* Pinel, l. c. p. 183.

tion, and, in many cases, ought to be considered as extenuating, in others, aggravating motives. If it often seems dangerous for a judge to treat a criminal with mildness, on account of the prejudices he has imbibed; governments are under an obligation still more indispensable to extirpate these noxious prejudices. Let us say, with Beccaria,* that we cannot properly call a punishment just, that is necessary, so long as the law has not employed, by way of preventing the crime, the means best suited to the circumstances of the nation.

Continuation of the Instinct of Murder in a State of Mental Alienation.

A baker of Manheim, who, from his youth, had shown in all his enterprises a very timid character, and who had for ten years experienced attacks of deep melancholy, also experienced from this last epoch a general weakness of nerves. He imagined that the purchase he had made of a house, caused his unhappiness, and that of his wife, whom he greatly loved. He complains incessantly, and laments his situation, which he regards as most desolate. He has sometimes had paroxysms of insupportable agony: he continually wishes for death, and would long since have inflicted it on himself, if, to use his expression, it were not a sin. He often speaks of a French blacksmith, who killed himself after destroying his wife. "You are to be pitied," he will sometimes say to his wife, in the most moving tone; "I must do as the French blacksmith did." We advised him to separate himself from his wife, but we know not whether he has adopted our precaution.

A cordwainer, at Strasbourg, killed his wife, and three of his children, and would have killed the fourth, if it had not been withdrawn from his fury. Having

* Crimes and Punishments.

committed this shocking action, he ripped open his own belly; but the wound not being mortal, he drew back the knife, and pierced his heart through and through. This man had the reputation of being mild and faithful, a good father, and a good husband. No one could discover what tempted him to this horrible action. At Leopold, in Galicia, a certain K. killed his wife, the object of his warmest affection, and would then have shot himself with a pistol, but missed. While people were forcing his door, he fired a second pistol and killed himself. His conduct had always been blameless, and all that could be learned was, that he was discontented with his condition, and thought he deserved a better. At Hamburgh, R —, a respected instructor, killed his wife and two small children, sparing two others who had been confided to him. A similar circumstance happened at Amsterdam, and several other facts of this kind have come to our knowledge.

Since these notices were written, I have read similar accounts in several journals; but not one has been judged with a knowledge of the cause, and in that philosophical spirit, which results from a profound acquaintance with the principles of human nature.

Again, a man at Frankfort, killed his wife, five children, and then himself. The authorities were embarrassed in the choice of outrages to be committed on his body, to avenge society thereby, as the expression is, for so atrocious a crime. A more recent example corroborates what I have already advanced. "A man named Guillon, of Tours, believing himself poisoned by drugs, which he had bought of a dealer in orvietans, resolved to murder him, and then destroy himself. Not finding the man at home, of whom he thought he had reason to complain, he wreaked his vengeance on his wife, and having killed her in a shocking manner, he was proceeding to drown himself, when he was arrested. Being condemned to death, the respectable pastor, charged with the spiritual concerns of the prisons in that city, was enabled, by the precious aids of religion,

to restore calm and consolation to the bewildered spirit of Guillon, but the unfortunate man constantly persisted in his desire to die, and not to appeal from his sentence."*

When such unfortunates do not succeed in destroying themselves, they surrender themselves at once into the hands of justice, and desire nothing more strongly than death. The execution of such a subject, it is said, is of little consequence one way or the other, though it is important that his family should not be disgraced. And why inflict punishments for actions committed in a state of insanity? Are you afraid of giving people an example that may be followed by fatal consequences? Then enlighten people on the subject of such diseases. Your first duty is to be just, and not commit cruelties that can have no object.

Since the publication of my large work, Falret, in his "*Treatise on Hypochondria and Suicide*," has recorded many facts, that are so much the more entitled to be noticed here, inasmuch as they are applicable to criminal legislation.

Disposition to suicide, and, in consequence of it, to murder, proceeding from an error of judgment relative to the crime.

"Margaret K——, a young woman, twenty-three years old, was sent to the house of correction in Onolzbach, Sept. 1755, in consequence of many crimes she had committed. Her reception was followed, as usual, by whipping and bad treatment. The whip made use of for this cruel purpose, wounded her seriously in the left breast, and caused her very severe pain. This treatment made such an impression on her mind, that she began to loathe life, and, to get rid of it, she determined

* *Journal des Maires*, June 30, 1818, No. 380.

to commit murder. She thought that, in doing so, there would be sufficient time for repentance, which she should not have, if she waited for her natural death. She formed her plan in cool blood, and executed it on another woman in the following manner:—

"One Sunday she complained of being unwell, and requested that she might be excused from attending divine service. A very simple, half-idiot girl, named Mederin, was set to watch her. Margaret persuaded this girl, that there was no hope of their being freed from their miserable situation, unless they decided on death, and proposed to her to be killed first. Mederin readily consented, with the only condition that she should suffer no pain. Margaret, therefore, accomplished her plan on Mederin by cutting her throat, which she held out to her, and the wound was received with the most perfect resignation.

"When Margaret was questioned in court, as to her motive in committing this horrible murder, she answered, that it was the blows and sufferings she endured in the house of correction. She thought to herself, 'if I take my own life, my soul is lost forever; but if I kill another, I shall not only die, but shall have time to repent, and God will pardon me.' When asked if she entertained no malice against her victim, or had been offended by her, she replied, that she could complain of no kind of injury on the part of this companion, who, on the contrary, was in the habit of coming to her, and communicating her troubles, as to a friend."

When asked if she slept peaceably, after committing such a dreadful deed; she said, that she had prayed to God, before going to bed; that she slept well; and, on waking, she again prayed. She seemed perfectly calm and collected during the examination, and until the moment when the nature of her crime was explained to her; but when made to understand, that, far from having taken the path to happiness, she had incurred the eternal wrath of God, she wept bitterly. Her physician

attributed her crime to despair and *tedium vitæ*, but the law paid no deference to his opinion, in its decision.

Disposition to suicide, and consequently to murder, produced by religious fanaticism.

"Daniel Voelkner, born at Friedland, six miles from Koningsburg, in Prussia, lost his father at the age of fourteen, and at this time he was apprenticed to a shoemaker. His apprenticeship finished, he went to Dantzic, to work at his trade; but before he had earned enough to procure the necessaries of life, his travelling chest, containing all his tools, was stolen from him. As it was impossible for him, after this, to labor, he enlisted for the term of sixteen years in the service of his Danish Majesty, and was sent to Copenhagen.

"Although, according to his own account, Voelkner suffered a good deal from his officers, yet he faithfully discharged his duties till the sixteen years expired, when he resolved to return to his native country. On his way thither, he met with a retired soldier, who was a master-shoemaker at Meyburgh. He made an arrangement with this man, but the work not pleasing him, he quitted the first day. Thence, he went to a tavern, and enlisted in the cavalry, and March 11th, 1753, he joined the regiment of Wentherkein.

"It appears that, from this time, till the 24th May following, thoughts of murder began to agitate his mind, and unfortunately they seemed to owe their origin to religious enthusiasm. His ideas of the happiness of a future life were of the most vivid kind, since they terminated in weariness of life, and in the desire of throwing off his mortal burthen. The only way which presented itself to his mind, to obtain this desirable end, was to forfeit his life by murder. After the accomplishment of this act, he imagined he should have time enough to make his peace with God.

"According to the testimony of his comrade and bed-fellow, this man lived a pious life, singing religious hymns and reading godly books, one of which he offered to his companion for his edification. He often admonished him to become devout, adding, that he himself had been very wild in his youth, but that he was now in the right way.

"One night, when in bed, the idea of teasing Voelkner a little, on account of his extravagant piety, occurred to his bed-fellow. He said, he looked upon it to be a thing unreasonable in some people to act so uncommonly devout a part, as if with a view of making it appear that they alone merited happiness hereafter. Upon which Voelkner answered, it was extremely unjust in him to think so, and immediately began to cry out, 'I must, I will be happy hereafter.' These words he repeatedly uttered with a loud and harsh voice, tossing his legs and arms about in a violent manner, and starting from one part of the bed to another. After this, he broke forth in sorrowful complaints about his past life, and began to exclaim, 'I am come to this at last, I am come to this at last,' which words he repeated three or four times. Upon his companion asking him to what he was come, he answered the same thing.

"According to Voelkner's own testimony, he had long entertained the idea of murdering a child, because he thought that, after having confessed and made his peace with God, he would soon reach that place, and that happy life, for which he sighed. Three weeks previous to the act, he suffered indescribable anxiety and uneasiness. It appeared to him as if he was obliged to kill some one. On some nights he slept well, on others not at all; but the idea of murdering some one always returned with the light of the day.

"Three days before he committed the crime, he went to the church-yard, and played with the children who were there, intending, if he had an opportunity, to kill one of them. At last, on the evening of May 23d, he accomplished his horrid purpose. A little girl, who had a companion

in the house where Voelkner was quartered, came that evening to pay her a visit. The landlord of the house and his comrade were both gone out about an hour before. Voelkner invited the two little girls into his room, and divided between them his supper. Immediately after which, placing his hand on the forehead of one of them, he bent her head back, and with a knife, which he had sharpened on purpose a day or two before, he cut her throat. He then went to the guard-house, surrendered himself, told what he had done, and acknowledged that it now caused him much regret. He was immediately taken to prison, where he slept calmly the whole night: for he acknowledged, that the uncommon uneasiness he had experienced for three weeks before, ceased upon his committing the act.

"During his examination he answered like a reasonable man, and expressed himself with precision, behaving himself decently, both in word and deed. He narrated the principal circumstances of his life, and said, he knew perfectly well what consequences were to be expected from such an action, and that he would be obliged to answer with his blood. But this thought, at that time, was by no means disagreeable to him."

Disposition to suicide; double homicide.

Catherine Hansterin, forty-five years old, lived in the village of Donovorth. Twelve years before, she was married to a man of harsh and austere manners, and had enjoyed pretty good health, never having suffered any indisposition, except some trifling febrile attacks, and some slight menstrual irregularities. In 1785, she was detected stealing milk in the village, and begged most earnestly, that her husband, of whom she stood in great fear, might not be made acquainted with the fact. It was promised her, but the husband got some imperfect account of it, and, finally, discovered the whole truth. From the testimony of several persons, it appear-

ed that the discovery of this theft made a deep impression on the mind of the woman, as much on account of her own reputation, as of the bad treatment she had to fear. She became melancholy and depressed. It appeared, also, from the written examination, that she confessed, though (what is rarely the case with Catholics,) her mind derived no consolation from this act. She often prayed without being aware of what she said, and was often seized with violent headaches, when she was unconscious of what she did.

"December 1st, 1786, she was still uncertain whether her tyrannical husband had any knowledge of the theft. Before this period he had frequently threatened to kill her, if what was said against her was true, and on that day he beat her cruelly. Nevertheless, before the court, she did not seem to remember the bad treatment she had received. Being asked how many times her husband had beaten her, she answered, 'I know nothing about it; my husband knows; I have no recollection.' After suffering this cruel treatment, she retired to rest, fearing still more for the morrow. Her daughter, about seven years old, came to her bedside and prayed with her. The mother, having made up her mind to leave her husband, asked the little girl if she would stay with her father. She answered, No; she was afraid of him. The next morning, after a fervent prayer, she abandoned her home, carrying with her her little daughter, and her other child two months and a half old. When about leaving, she again asked the little girl if she would not prefer staying with her father, and she replied, that she had rather die. The thoughts which this reply brought to the mother's mind, the distress that afflicted her, the fear of what would happen to her children in case of her death, and, at the same time, her ardent desire to terminate her own existence,—all these united, gave rise to the barbarous design of drowning her two children.

"Having arrived at the bank of the Danube, she made her little girl kneel down, and pray God for a good

death. She then placed the infant in the hands of its sister, blessed them both, and, making the sign of the cross, pushed them into the river. This done, she returned to the village, and told what had passed."

This case, as well as the two preceding, are taken from the *Psycological Magazine*, vol. vii. part 3. Crichton has given them a place in his excellent work on Madness, and I have made my translation from the English.

Suicide preceded by homicide.

M***, aged forty-seven, of a bilious-sanguine temperament, and of a hot, impetuous disposition, was born of parents sound in mind and body, passed the early part of his life without any severe disease, and served six years in the army. He married, and became the father of three children. He loved good cheer, and in this way had consumed his little property.

For a long time, he was tortured by jealousy, and kept a careful watch over the conduct of his wife. He had already had some warm altercations with her on this subject, and finally, one evening, after he thought he had detected her *flagrante delicto*, he armed himself with a mallet and knife, went to bed, and feigning sleep, waited till his wife was soundly asleep. When he saw the moment had come, he struck her on the head with the mallet, and finished the murder, by repeated stabs with the knife. The next morning, he rose from the bloody bed, sought out the attorney-general, (procureur imperial,) told him he had killed his wife, that he deserved death, and was going, of his own accord, to prison. He was carried into the town of * **, to take his final trial. Although he constantly maintained, that he was in his sound mind, that he killed his wife because she deserved it, and that if it could be done over again, he should not do otherwise, yet, guided by principles of legal medicine, it was decided that M***

was laboring under a true mental alienation. He was therefore remanded as insane, and sentenced to perpetual confinement in the hospital of that place. Some time after, this unfortunate man procured a pistol and blew out his brains. He left behind a letter, in which, after expressing his horror at injustice, he added, that if he had not killed himself after killing his wife, it was because he preferred to receive death at the hands of the executioner; but since they were unwilling to inflict on him so just a punishment, it belonged to him to discharge a debt due to society.

So, therefore, the different degrees of activity and the independent action of this propensity, in disease as well as health, prove it to be a fundamental quality, and, consequently, belonging to a peculiar organ.*

Incendiaries.

In prisons, we have examined criminals of every description, even when ignorant of what organ it was, whose vicious activity had led to the crimes for which they were confined; and in all who, from motives of revenge, or for the mere pleasure of seeing a fire, have committed arson, we were astonished to find a large development of the same cerebral parts, whose vicious activity produces the imperious disposition to murder. Reflecting a moment on the biography of the most sanguinary monsters, that have directed their fury against their own species, we saw, in fact, that they all found an atrocious pleasure in desolating their country by conflagrations. We have already mentioned some acts of Caligula and Nero. We recollect the band of Auxerre, known by the name of Chauffeurs, and it is probable,

* In treating of suicide, while discussing the organ of circumspection, I shall show, that, in cases like these, as well as in those of suicide, there is not only an irritation of the carnivorous organ, but, also, some derangement of the organ of circumspection.

that the pleasure experienced by certain people in firing buildings, is but a simple modification of the disposition to murder. The German language itself would seem to confirm the idea, that the propensity to kill, and the propensity to fire buildings, are closely related to, or even founded upon, each other; since those who burn from premeditation, are called, in German, *Mordbrenner*, from the substantive *mord*, murder, *brenner*, incendiary. Thus, the law punishes the incendiary, as well as the homicide, with death, and laws are very often founded in the nature of things, even when we least suspect it. Our opinion is also strengthened by the fact, that there have been some individuals in a state of idiotism, or mental stupidity, who were borne on by an irresistible impulse to the commission of incendiary acts. In the prison at Freyburg, in Brisgaw, there was a half-imbecile youth, fifteen years old, who had set fire to nine houses in succession. When the fire was over, he thought no more of it; which proves that he was governed solely by an animal instinct. In No. 46 (1802) of a German journal, the *National Gazette*, is related the following very remarkable criminal case:—

"August 16, Maria Franck, aged thirty-eight, was executed at Schwabmunchen, and her body burned. Within five years, she has fired twelve houses in the borough where she resided. The losses occasioned by these fires have been estimated at over seventy thousand florins. On the thirteenth attempt, she was arrested, and delivered into the hands of justice.

"It is hard to conceive how this woman could have arrived at such a degree of depravity. She was a peasant's daughter, possessed extremely limited intellectual powers, could hardly read, and all her religious knowledge was confined to external observances. In her younger days, she had several attacks of disease, for which, instead of calling in a physician, they had recourse to an exorcising father of a Franciscan monastery in the neighborhood. She never had much regard for her husband; her union was not very happy, and

she had no children. Her husband treating her harshly, and paying her but little attention, she neglected her domestic affairs, and sought consolation in devotion. As her domestic concerns went from bad to worse, she abandoned herself to intemperance, and robbed her husband to procure the means of indulgence. About this time a fire occurred, in which she had no hand. From the moment she witnessed this fearful sight, she felt a desire to fire houses, which, whenever she had drank a few coppers' worth of spirit, was converted into an irresistible impulse. She could give no other reason, nor show any other motive, for firing so many houses, than this impulse which drove her to it. Notwithstanding the fear, the terror, and the repentance she felt, in every instance, after committing the crime, she went and did it afresh. The government caused her to be examined several times by physicians, to ascertain the state of her health, and the temper of her mind; *but they could find no sign of alienation.* She heard her sentence with Christian resignation."

These facts, however, would not have induced us to admit an analogy between the propensity to kill, and the propensity to burn buildings, if we had not found the same cerebral parts developed in incendiaries, that we had, in murderers; and if the crania of these two kinds of criminals had not presented the same prominences.

What is the fundamental quality of the disposition to murder—of the disposition to kill?

To answer this question at all satisfactorily, we must first go back to the circumstance that led to the discovery of this propensity, viz. the difference between the skulls of the carnivorous, and those of the frugivorous animals; the former having a prominence above the ear, produced by a large cerebral mass, which the latter have not. My position in regard to the discovery of this quality, was the same, as for all the other fundamental qualities or faculties and their organs. It would

have been impossible for me to discover such a quality or faculty, unless it had been manifested in the highest, or, at least, a very marked degree of activity; and I was under the necessity of giving it a name, derived from this high degree of activity. Another reason for this cause was, that the carnivora must not only be forcibly impelled by this inward propensity to kill creatures necessary for their support, but it must also teach them the kind of death to be inflicted on their prey. Hence the denomination, *instinct of murder*. As man is the most formidable of all the carnivora, as he confines his ravages to no single one, nor a few species, like the greater part of the other carnivora, that kill only for nourishment, and indulges his ravenous propensity upon every living thing, not even excepting his own species, he may be called carnivorous, (*carnassier*,) with a better title to the name, than any other creature. But never, as some of my opponents, with equal assurance and folly, have sedulously endeavored to make people believe, never, in speaking of the *instinct of murder*, did I mean thereby, a propensity to *homicide*. My principle is, and I shall always adhere to it, that to designate a fundamental quality or faculty, common to man and the lower animals, we must choose a name that will be applicable to it in the brutes, as well as in our own species. But, certainly, a propensity to murder impelling to homicide, would be totally inapplicable to the natural destination of the carnivorous animals.

The propensity to destroy, or *destructiveness*, as Dr. Spurzheim calls it, gives a too general and extensive signification to the carnivorous instinct. Spurzheim derives from the same propensity, the acts of quarreling, pinching, breaking, tearing, burning, biting, devastating, demolishing, overturning, &c. The architect who demolishes in order to build,—the gardener who roots up one tree, for the purpose of planting another, cannot be charged with destroying; otherwise, there is no animal, frugivorous, or carnivorous, destitute of the propensity. And, finally, this appellation does not at all convey to the mind of the reader, the idea of the quality, whose

natural history we have been considering. Perhaps I, or my successors, may succeed in determining its fundamental power with more precision. For the present, it is enough for the reader to know exactly what I understand by the quality in question, and how the gradual development of its organ may, subsequently, become the material cause of the propensity to homicide.

If man had sufficient force of mind to recognize the true place assigned him by nature, he would discover here, too, a wise institution. When man came from the hands of his Creator, the Supreme Being surely foresaw that he would live with his fellows in a state of eternal war. Would it have been just for nature to withhold from him the means of ridding himself of his enemies? Have not they done their duty, who have condemned criminals to death; or they who, with fire and sword, have destroyed the enemies of their country? And if the human species should remain at peace, for a few ages only, it would, for that reason, inundate the whole surface of the globe; every animal would be displaced, the whole equilibrium of nature disturbed, and its order completely inverted. This is the why—the final cause—that war has such singular charms, to civilized as well as savage nations; that they seem to be born and to live for it; and that, of all other passions, it is the one of which they make the greatest show. It is well proved, that the first ideas of religion were warlike ideas; that one of the first attributes given to God by men, was that of *God of battles, God of armies.*

I ever recognize and revere the supreme foresight, and submit to its laws. Let those who seek for glory, in leading nations to the work of butchering one another, and who slaughter their fellow-men by thousands, know that they act not altogether of their own will;*

* But we would have them know, at the same time, that obedience to the higher sentiments, and a strict regard to the organic laws, are the only conditions by which these great evils are to be avoided. Great

that nature has placed in their hearts the rage for destroying their own species; that, little as they suspect it, they are merely one of the instruments it employs for thinning the human population. Thus they figure by the side of devastating pestilences, and of all the disasters by which man is assailed, from within and from without.

The expression, *instinct of murder*, therefore, may be excused, even where man kills his fellow-man; for they will never be said to commit homicide, who destroy those of whom the country must be rid. I would, therefore, wish to keep my first name; but, as the multitude will always be tempted to confound murder with homicide, I prefer, for the present, that of *carnivorous instinct*.

Seat of the carnivorous organ, and its external appearance in the human cranium.

We ought not to expect to find a large development of the carnivorous organ in all murderers. There are unfortunate circumstances, in which an organ, even but moderately developed, may be so excited, as to acquire a high degree of activity. People who make rhymes in the delirium of fever, are not always poets. We

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evils are permitted, that great blessings may be appreciated; and examples of abuse and of human suffering tend to make known the conditions of health and happiness. We believe that man is destined to increase in perfection, as he increases in practical knowledge; and that his ultimate perfection will depend upon the complete ascendancy and control of those faculties and sentiments which are proper to man. War is an evil which originates in the predominance of the animal propensities; and the martial glory of nations is often nothing more than animal gratification. Not that wars are unjust or unnecessary, in the present state of the world; but they are contrary to the dictates of the higher principles of our nature, and therefore should be opposed as destructive to the best interests of man. The natural consequence of indulging in wars, is to increase them; and all influence that tends to subdue the passions of the human soul, will mitigate and lessen them.

Ed.

frequently see persons, whose conduct has always been irreproachable, from a concurrence of unfortunate circumstances, committing actions which they have sincerely abhorred, and which they detested even after they had committed them. No crime is naturally more repugnant to my feelings than homicide; still, looking to the very bottom of my heart, I would not venture to affirm, that I am beyond the reach of temptation under all possible events. A father, after educating a beloved daughter in the sentiments of honor and virtue, and believing he has secured her happiness by a settled match, sees this child, the object of his tenderest affection, dishonored by a vile seducer. At the moment of the consummation of the crime, this unfortunate father, hurried on by feelings as proper as they are heart-rending, becomes the murderer of the wretch who dishonors him. Would it not be a deplorable error, in legislation as well as the physiology of the brain, to confound such a father with the consummate cut-throat?

Besides, the physiologist well knows that depravement of moral character, or a propensity to murder, is sometimes the effect of a chronic and masked disease of the brain. We have very often found the skulls of homicides, like those of maniacs who have been such for many years. In treating of lesions of the brain, I have related several cases, where the whole moral character was found to be changed after one of these lesions. Who is not aware of the consequences of diseases or mutilations of the generative organs? None of my readers can be ignorant, how blindly the propensity to suicide acts, as well as that other mental affection, still more dreadful, in which the patient not only destroys himself, but, believing that he is inspired from on high, sacrifices others, and ordinarily those whom he most loves, his wife, and children. Such affections strongly show the necessity of caution in forming our opinion in cases of homicide, and that a righteous judge must have a profounder knowledge of man than is generally possessed by those, who, in applying the law to criminals, con-

sider only so much of the action as falls within the cognizance of their senses, and are capable of nothing but a literal interpretation of the law.

It must also be borne in mind, that the same degree of activity of an organ, may produce entirely different actions in different individuals. If we except idiotism and insanity, and cases of an entirely circumscribed excitation, actions are never determined by the activity of a single organ. The manifestation of a certain power will differ according to the strength and modifications of the action of the other organs. The propensity to murder, combined with courage, acts very differently from what it does when combined with deliberate malice; and still more so, when combined with philanthropy, &c. The possessor of superior intellectual powers, will know how to give his propensity a more favorable direction, than the man of feeble intellect. Education, habit, example, religion, morality, laws, &c., act on a man endowed with moral liberty, as so many motives for conforming to the social order, even in spite of his propensities. These are sufficient reasons, why a large development of the carnivorous instinct is not to be sought for in every individual who has been hurried to the commission of homicide, without being particularly disposed to it by his primitive organization. They will explain, too, why I am very far from considering a person as disposed to commit homicide, for the sole reason that he has the organ of this instinct largely developed. All we can confidently maintain is, that, *cæteris paribus*, a person who has this organ large, will be more easily induced to commit homicide, than one not naturally disposed to it by his organization. Amid the tumult of violent passions, the transports of jealousy, vengeance, and anger, the idea of revenging himself by fire and sword will be suggested to the former, while the thoughts of the other will take a quite different direction.

Having thus prepared the mind of the reader by these remarks, I now proceed to speak of the organ itself. Facts relating to this subject are so numerous, I must

be contented with recording a few, which particularly suggest some interesting reflections.

Comparing many skulls or heads together, we shall find some, in which the temporal and inferior-parietal region, that is to say, immediately over the ears, is flattened; while in others, this region is prominent and rounded out. This convexity exists precisely in the place where the temporal bones are so thin as to be transparent, and where, consequently, the cerebral parts beneath show their real dimension. When the development of this cerebral part is excessive, the whole portion of the cranium, from the inferior edge of the parietal bone, even to the ear, swells out; when less developed, the prominence is limited to the temporal bones. This region is marked vi. both on the brains and skulls.

In two of the Schinderhannes band, who had been guilty of more than twenty homicides, the organ of murder is very apparent. This region was extremely prominent, forming a segment of a sphere, in a soldier at Berlin, who was subject to an irresistible propensity to commit homicide, and who, on the approach of his paroxysms, which he was always aware of beforehand, caused himself to be confined, that he might be prevented from shedding blood. We found the same conformation in the girl that helped her mother kill her father, and who spoke of the parricidal deed with a smile, regarding it as nothing extraordinary. In a half-idiotical young man, who had killed a child from no other cause than obedience to a blind impulse; in a fellow called Homme-dieu, whose skull M. Brüggmann showed us at Leyden, and who pushed people from the dykes into the ditches below, solely for the pleasure of seeing them struggle with death; in a homicide belonging to Brunswick, who, with no other motive than the pleasure of killing, committed his second murder on a child; in twenty-five women guilty of infanticide, whom we had an opportunity of seeing in different houses of correction; in an assassin at Frankfort, who was executed after his second homicide; in another criminal, to whom

murder had become a habit; in Bouhours, who killed her victims with a hammer, in order to rob them of their money; in all the skulls of homicides in the collections of M. M. Habert, Sax, and Weigel;—in the skulls of all these people, I say, the same region was very prominent, and, consequently, the same cerebral part was very much developed.

In Bouhours, three organs had acquired a high degree of development. The excessive activity of one produced a propensity to steal; of the second, to murder; and of the third, to fight;—an unhappy concourse, which can only explain the atrocious conduct of this monster.

Lepelley des Longs-Champs had the organ of murder largely developed, while that of courage was small. He planned a murder, which he made Heluin, more courageous than himself, execute. The latter was strongly disposed to steal, which explains why he was always ready to commit homicide, for money. I have subjected the skulls of Valet and Mercier to the same test; Valet committed a quadruple homicide on his mother and three aunts. Mercier assisted in the massacre, but without giving a single blow himself, only he prevented the women from escaping. He had been promised a sum of money by Valet. In Valet's skull, the organ of murder is well developed. In Mercier's, it is not. The organs of self-defence, (courage,) of circumspection, and of benevolence, are all small. The organ of sentiment of property, on the contrary, is very prominent; hence, we have baseness, malice, want of foresight, or stupidity, and, to finish the unfortunate combination, an inveterate propensity to steal. I have plaster casts of these crania, which are in the Royal Garden.

The skull of Voirin, hatter, guillotined at Paris nearly ten years ago, for having committed two murders, is very remarkable. If, when I first saw this head, I had never before known the organ, possessing the degree of development, which produces the propensity to murder, I should have discovered it in this subject. The region above indicated is extraordinarily developed, and very

prominent, which explains the impulse that hurried him on to the commission of homicide. The following passage is taken from the record of the accusation of this murderer.

Perrin was descending the stair-case, holding a light, and preceding Voirin. Suddenly he felt a violent blow on his head. His hat fell off and extinguished the light. Frightened for his life, he struggled with his assassin, who redoubled his blows, sprung upon his victim, threw him on the ground, and, placing his knee upon his chest, continued to strike him. Perrin, however, did not entirely give up; he had strength enough left to seize his murderer by the hair; he also bit his hand severely, and wrested from him a piece of iron with which he was armed. Voirin got back the iron, and struck Perrin again, who still evinced compassionate and generous feelings for his assassin. "Wretched man," said he, "I have known you from infancy, and you are bent on murdering me! But I knew your father. I would not harm you; save yourself." He was about to open the door to let him out, when Voirin sprang upon him, and began striking him again. In the mean time, Perrin succeeded in opening the door, and called for aid. Hearing his cries, Voirin now determined to commit the crime. "I am a lost man," he exclaimed, "I am a monster, a cut-throat." These expressions would seem to refer to some previous crime. He even said, "that he was urged on by a frightful impulse, which prompted him to kill." Arrested at the very moment of finishing the murder, he exclaimed, "I feel the bitterest remorse; I am impelled by an irresistible power to shed the blood of my fellows; two months ago, I bought pistols for the purpose of blowing out my brains; I am sorry I did not do it."

When M. Danloux, after the murder of Geyer, observed the accounts of Voirin's expenses, and censured him for them, and even suspected his honesty, Voirin said that there was a woman who supplied his extravagance. In his defence he accounted for his money, by

saying that he won it at play, a short time after the murder of Geyer.

Voirin, indeed, was not an idiot, and, consequently, not absolutely incapable of reflecting, or of being guided by motives of an elevated order. For this reason, he wished to destroy himself, that he might prevent the crime to which he felt himself impelled; but his very low forehead shows, that his intellectual faculties were extremely small. The upper part of the frontal bone is flattened, indicating a want of benevolence. The head of the fratricide Dautun, is cast almost in the same mould. When, to such an unfortunate organization, there is joined a want of education and of moral and religious instruction, it is easy to foresee how such a character would terminate, how little soever circumstances might impel him to the crime. It is for this reason, that I insist so strenuously on the instruction of the lower classes, who have far stronger excitements to vice and crime, than others.* How often have we had occasion to observe, that those persons are the really guilty, who suffer the mind of the people to stagnate and corrupt in ignorance and superstition. The following account presents many points of resemblance between Voirin and the author of a crime, committed at Albi, in 1808.

"The court of criminal justice of Tarn," says M. Coutele,† "condemned to death, Jan. 21, 1809, a man who was convicted of having killed his brother-in-law. The jury and the spectators were struck with the unwavering ferocity, manifested by this person during the trial. He had the most sinister aspect, and such was the expression of his sombre and savage look, and haggard eyes, that none could see him without a shudder. The judges were convinced they had never seen the figure of a man-tiger drawn in such strong relief.

"The court had followed the traces of his crime, but

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* V. Sect.

† Observations on the medical constitution of the year 1808, at Albi, part II. by M. Coutele, M. D. at Albi, 1809, p. 163 and 165.

no evidence had fixed it upon him as the author, because no witness had seen it. He confessed it himself voluntarily, and of his own accord, and with the utmost sang-froid, detailed every circumstance that attended it. The dreadful story made the large audience that listened to it, shudder with very horror. After confessing all with calmness, and with an air of familiarity with the subject, he declared *that he had been urged on by an impulse to this murder*, adding, *that he could not resist the temptation of killing and shedding blood.* He seemed to be aware, that, if left to himself, his existence would be a calamity to his species.

"In the special examinations, he had already made known a series of crimes, previously committed on his nearest relations. Among others, he made several attempts to poison his mother and step-father.

"The announcement of his sentence did not intimidate him. He heard it without fear or remorse; he declined to appeal, and requested them to hasten his death. He refused all spiritual aid, appeared to be unmoved by the thought of his near destruction, and mounted the scaffold without emotion.

"The great importance," continues Dr. Coutele, from whom I have taken this account, "of ascertaining whether the conformation of the skull in this subject corresponded with his well-known character and the expression of his countenance, induced me not to neglect examining it.

"Decending into the pit, shortly after the execution, I hesitated for a moment to take up the head, which had been separated from the trunk. The eyes glared, and the features retained, to the full, their fierce and threatening expression. I soon found, by the touch, a prominence in the temporal region, just over the ear; having exposed the squamous portion of the bone, I found, on its posterior third, a round bump, from three to four millimetres (0.11811 to .15748 of an inch) high in the centre, and a dozen centimetres (4.7244 of an inch) in circumference at the base. It bore some

resemblance to those little balls of ivory or stone, that children play with. The two prominences were perfectly symmetrical."

The whole region over the ears is more remarkable than in any other cranium. In that of Madeline Albert, of Moulines, it is so developed, that, without exaggeration, it might be thought to have been blown up. (Pl. lxviii. fig. 1.) This monster killed her mother, brothers and sisters with a hatchet. During the preparation for her trial, she spoke continually and with pleasure, of her atrocious deed. For the convenience of the artist in drawing her figure, she willingly placed herself in the attitude she took, when meditating the crime, (Pl. lxix. fig. 1.) Excepting the organ of murder, (vi.) the whole head is but moderately developed. The forehead is low and narrow. From all appearances, this girl had none of the resources furnished by education, for combating the pernicious impulses, to which her internal organization made her a prey.

Since the publication of my large work, I have obtained six skulls and casts of murderers, all of which show the organ much developed, viz.; the cast of Merlin, who murdered his father for refusing him money: that of Boutiller, who murdered his mother for the purpose of robbing her; that of Foulard, who murdered his mistress, in a fit of intoxication, to get possession of her jewels; and that of Guichat, an assassin and robber. These four murderers had, besides the organ of the propensity to murder, so large a development of the organ of the sentiment of property, that there was also a propensity to steal. The next, the skull of a hussar, and pump-maker by trade, who killed his mistress for her infidelities, presents the organ of the propensity to murder only, largely developed.

A society of physicians* charged M. Trolliet, physi-

* I beg these gentlemen to receive my warmest thanks. If such zeal were every where manifested, what progress would not the science make in a few years!

cian of the Hotel-Dieu, to send me a cast of a remarkable criminal, executed at Lyons. His name was Lelievre, and he styled himself Chevalier. He was accused of robbing the bank of France, where he held some office, of sixty thousand francs, (about twelve thousand dollars.) He had poisoned his mistress, and his first three wives, killed two of his children, and robbed another. He was for seven or eight years, employed in the prefecture of Rhone, in quality of chief of the bureau. The cast shows an unfortunate combination of several organs largely developed, viz. those of the propensity to murder, to cunning, and to theft. The organs of calculation, wit, mimickry, &c. are large, with a small development of the organ of circumspection; consequently, we have heedlessness, perverse inclinations, and a temper of mind to be extremely pleased with their indulgence!!

Dr. Spurzheim saw, in the Hunterian Museum, two Carib skulls, which swelled out greatly over the ears. See, also, Pl. lxxiv. fig. 2. vi. the skull of an adult Carib.

I have constantly observed, that bloody spectacles have a peculiar charm to those women in whom this organ is large. They are fond of the chase; they would like to be men, to follow the profession of arms; they bestow their affections on military men exclusively; battles are never murderous enough for their taste; and, in reading the newspapers, their curiosity is excited only by the accounts of murders and executions. Like Aurelian and Louis XI., they are fond of attending executions, and, if decency permitted, they would adopt the example of Catherine de Medicis, and be pleased to make their children spectators of such revolting spectacles.

In the engraving of the Marquis of Toirus, who excelled in the chase, and whose principal passion was that of arms, I observe this organization expressed in a very high degree.

I have elsewhere said, that painters, draftsmen, engravers, and sculptors, sacrifice truth to erroneous

notions of beauty, and endeavor to render less striking those uncommon forms, which they sometimes meet with in their models. Still, there occur, from time to time, forms so striking, that the likeness absolutely depends on it, and then the artist is obliged, in spite of himself, to remain true to nature. In this way we obtain some faithful portraits of remarkable persons. The busts and portraits of Caligula, Nero, Sylla, Septimius Severus, the most cruel and warlike of the Roman emperors; Charles IX., Richard Coeur-de-Lion, Philip II. of Spain, the sanguinary and cruel Mary of England, Catherine de Medicis, Ravaillac, the famous corsair Storzenbecker, the fierce and sanguinary Knipperdolling, (pl. lxix. fig. 2.) and bishop Bonner, who, in the space of four years, sent more than two hundred victims to the flames, all bear the outward mark of a cruel and bloody character.

The action of this organ, when very active, must be necessarily modified by the co-existence of one or many other faculties, equally very active. Combined with love of fighting, it constitutes the warrior, brave to temerity, as well as the invincible brigand. Combined with a high degree of lasciviousness, it constitutes those debauchees, who, like Nero, the author of Justine, and Count Charrolois, stained their debaucheries with blood, and sacrificed the same victims, both to their lust and their blood-thirsty temper.

In treating of the dispositions to theft, pride, devotion, &c., I shall show how they modify the propensity to murder, when they accompany it.

From what has been said, my readers will comprehend, why even Montaigne, who had probably reflected on such facts, could not help expressing the following sentiments:—"I could not be convinced, before seeing it, that there are spirits so brutal as to murder for the single pleasure of the thing; who would hack and hew the limbs of a fellow-being, rack their ingenuity to invent new means of torture, and enjoy the charming sight of the writhings, the dreadful cries and groans of

a man dying in agony,—the utmost refinement of cruelty. *Ut homo, hominem, non iratus, non timens, tantum spectaturus occidat.* Seneca, epist. 90.—2.

"I seldom take a wild animal alive, which I do not restore to liberty. Pythagoras bought them of the fishermen and fowlers for the same purpose. The barbarous treatment of brutes, indicates a natural propensity to cruelty. When the Romans had become accustomed to the shows of the murders of wild beasts, they they were not long in getting to those of men and gladiators. Nature, I fear, has implanted in man some instinct of inhumanity." *

It is proved, therefore, by the natural history of man and brutes—of man, in disease as well as health—that the murderous, or sanguinary instinct, is an innate primitive power, and, consequently, a fundamental quality, resulting from a particular cerebral part, placed just above the ears, in the majority of the carnivorous and omnivorous animals.

VI. Cunning, Trick, Tact, (List, Schlauheit, Kluheit.)

History.

In early youth, I was struck with the character and form of the head of one of my companions, who, with amiable dispositions and good abilities, was distinguished for cunning and trickery. His head was very large at the temples, and naturally inclined forwards. Although a faithful friend, he felt an extraordinary pleasure in employing every possible device to make game of his school-fellows, and mystify them. His natural language was precisely the expression of cunning, such as I have often observed in dogs and cats, when playing together, they wished to give each other the slip. Subsequently,

* Montaigne, Essais liv. 2. chap. 2.

I had another companion, who, at first sight, was candor personified. No one had ever mistrusted him, but his gait and manner were those of a cat, watching a mouse. He proved false and perfidious, and shamefully deceived his young school-fellows, his tutors and parents. He carried his head as before mentioned; his figure was handsome, and his head exceedingly large at the temples. One of my patients, who died of phthisis, generally passed for a very honest man; after his death, I was struck with the size of his head in the temporal region; and shortly after, I learned that he had cheated his acquaintances, and even his mother, out of considerable sums. At Vienna, I was often in company with a physician of uncommon attainments, whose character for cheating, rendered him universally despised. Under pretence of dealing in objects of art, and of lending on pledges, he fleeced all who put any confidence in him. He carried his trickery and cheating so far, that the government warned the public, through the newspapers, to beware of him; for he had practised his arts with so much dexterity, that he never could be legally condemned. He frequently told me, with an air of sincerity, that he knew no greater pleasure, no more exquisite enjoyment, than that of duping people, and especially those who distrusted him most. As this physician's head was also very large at the temples, I was naturally impressed with the idea, that the essential quality of this character, cunning, is a primitive one, and is manifested by a particular organ of the brain.

Natural History of cunning in man and brutes.

The lower animals make use of innumerable arts for procuring food, and escaping from their enemies. If we bear in mind, that these means are always really the best, the most appropriate to the end in view, and that the faculties of the creatures that employ them are, in every other respect, quite limited, we shall be obliged to

admit in them, a peculiar power, or, if the expression be preferred, a peculiar genius, by which they are inspired. All are acquainted with the stratagems of the cat family, of the marten, of the pole-cat, of the fox, and the diving-birds. Who would believe that the stag and hare often deceive the most experienced hunter and the best trained dogs? They make a thousand turns, leap over bushes and walls, return upon the old track, save themselves, sometimes in the open plain, and sometimes in the coppices, according as they are pursued by greyhounds or blood-hounds; start up other deer and other hares; increase their speed, or retard it when the danger or the need of husbanding their strength requires it. Who has not observed the art, with which a squirrel or wood-pecker turns around a tree, or a marten stretches himself out on a limb, and remains motionless, to prevent his being seen by the hunter?

The fox and wolf, unless pressed by hunger, will rarely levy contributions on their neighborhood; they never forget that they must beware of snares. When warned by the wind that their prey is near, they steal slowly along, but, when at a distance, they fly to approach it. Often, when hunting in packs, will they carefully reconnoitre the course the roe-buck, stag, or hare has taken, and then divide into parties, the more easily to put their victim at bay. In the circus at Vienna, they very frequently put several ducks into a reservoir of water, and then let loose upon them some bears. The moment a bear entered the water, nothing more was to be seen of the ducks. When, after many efforts, a bear succeeded at last in getting a duck, the latter would feign death, so as even to appear stiff and cold; but hardly had the bear laid him on the ground, when the duck fled swiftly back to the water. I must pause, for I should never finish, were I to relate a few only of the facts with which I am acquainted, respecting the artifices of animals.

In man, cunning is displayed in various ways, from his very infancy. There are children, for example,

who, without being indebted to education for the habit, lie continually, and without necessity, alter every fact, and fabricate false reports, even when it would be easier for them to tell the truth.

Who shall depict all the artifices, hypocrisies, cheating and perjury of rich and of poor, of strong and weak, of citizen and warrior, priest and parishioner! "Artful and hypocritical man constantly endeavors to control the expression of his countenance and motions; he is impenetrable, he dissembles bad offices, smiles upon his enemies, checks his temper, disguises his passions, belies his character, speaks and acts contrary to his sentiments; all these are but refinements of the single vice, falsehood."*

Every body knows, that there is a class of people that take a pleasure in artifice, dissimulation, perfidy, falsehood, circumvention, duplicity, and lying; and that there are others, who act with rectitude and speak with frankness. All that I can say on this subject particularly, is, that neither the character of the disguised, artful, intriguing and perfidious man, nor that of the frank and upright man, is the result of their own will alone: but that these different kinds of character result from a particular organization.

Seat of the organ of Cunning, and the character by which it is manifested externally.

In the brain, this organ is situated above and a little in front of the organ of the carnivorous instinct, (ix. pl. viii. and ix. pl. xi.) It forms on the head and cranium a prominence swelling out and extending longitudinally from behind, forwards, and terminating above an inch from the upper superciliary arch, (ix. pl. xxviii.) When the organ of the carnivorous instinct is very much de-

* The Courtier of la Bruyere.

veloped, we may easily confound it with that of cunning, unless we bear in mind that the latter is placed higher up, and further forwards on the temples; and that, instead of forming the segment of a sphere, it extends longitudinally. When both are large, the whole side of the head and skull forms one large, full prominence, as in vi. ix. pl. xxvii.

This organ requires particular study in each species. In the most common species of ape, for example, it commences above the origin of the zygomatic arch, and extends forwards to nearly the middle of this bone. Its situation is the same, in the tiger, cat, and fox. Generally speaking, without excepting the frugivora and the birds who are remarkable for their cunning disposition, the region above mentioned is very prominent in the lower animals. Observe persons, whose head is very prominent on the sides and flattened on the top, and you will always find them false, artful, perfidious, venal, vacillating and hypocritical. Such persons overwhelm you with politeness, and deafen you with flattery; they make you feel at home with them, that they may unsuspectedly lay their plots against you, and the more easily work your ruin.

When a considerable development of this organ is combined with a large development of the higher qualities or faculties, its activity is capable of receiving a legitimate and useful direction. Persons thus endowed have considerable tact, (*savoir faire,*) they are very well suited to perform secret missions; and, naturally disposed to intrigue themselves, they have a wonderful facility in scenting out, and penetrating into the intrigues and cabals of those with whom they are negotiating conflicting interests; consequently, they are capital people to oppose to those of a similar character. At Paris, I was shown a personage of this kind, M. de S——, and at first sight, I divined his character in respect to this quality. Being told of the opinion I had formed concerning him, he was quite enchanted, and commenced a conversation with me, in which he detailed at

length the means he was accustomed to use, in accomplishing the objects of the various missions with which he had been entrusted. He was one of the most skilful diplomatists the government had ever employed.

I once dined with a family, the mother of which, one of the sons and one of the daughters, presented this same organization in a very high degree, while the utmost frankness and sincerity were displayed. Spurzheim and myself determined to keep these three individuals in view, and during the nine years our acquaintance with them continued, we found that our first opinion was but too often confirmed. The same thing occurred, relative to a young woman who seemed innocence itself. Again, no one ever seemed so glad to receive us; no one, with a more yielding, sweet and winning air, overwhelmed us with so much politeness and flattery as a certain professor; but his organization warned us to be on our guard. It was this same very polite professor, who has often undertaken to decry our labors by metaphysical and philosophical declamations, though always prevented from entering thoroughly into the subject, by the weakness of his means and the evidence of my doctrines.

In houses of correction, we have found this quite large, in those who had committed the offences of which they were guilty, under circumstances of considerable cunning and perfidy. Never, for example, within our experience, did a robber, endowed with an ordinary development of the organ of cunning, commit an ordinary theft; for, in fact, he would steal only when the larceny required consummate address. A robber of this class is delighted and amused, with detailing all the means he has used in arriving at his ends, and omits none of the comical circumstances of the adventure. When the organ of cunning predominates over that of theft, the thief is not strongly disinclined to restore the stolen object, provided always he has an opportunity of proving his skill in committing the theft.

In hospitals for the insane, we have met with this

organization, in patients who were addicted to cheating tricks during the paroxysm, but especially in those who were impelled to them by an irresistible impulse: examples of this nature are not rare. Pinel relates several, and he proves that this disposition depends on a particular organ.

The writer, with this organ large, will choose the department of romance. The poet, will have great facility in skilfully combining his fictitious or real events, in such a manner as to work up his story ingeniously, and bring it to an unexpected denouement.

In war, this organ inspires the general with stratagems, by which he surprises the enemy, conceals his force, masks his designs, and makes feigned marches and false attacks. As this organ always supposes an intention, a plan,—it also plays a peculiar part in society. It sees a settled design in the most innocent words and actions; a forced construction is put upon every thing, and they would often make us responsible for what we never even thought of. The portraits of Caracalla, of Catherine de Medicis, of Claudine Alexandrine Guerin, and of Tencin, all of whom were fond of intrigue, present us with examples of this organization The development of this organ, like that of all the rest, is capable of being favored by the influence of climate, and perhaps, also, by customary occupations. Artifice and perjury appear to be characteristic of certain nations, (*græca fides,*) while others believe themselves irrevocably bound, when they have once shaken hands upon a bargain.

Again; I remark, that we must be careful not to confound this character with that of certain persons, who, from a want of good sense, never conduct with straightforward frankness, and are constantly twisting one way and another, and who, therefore, get the reputation of being intriguers. But they are not actuated by a spirit of intrigue; for the excuses they offer for their conduct, still more than the action itself, show a silliness of character.

What is the primitive faculty of this organ? "When," says Spurzheim, "I consider the mental operations of man and brutes that possess this organ, particularly, when I observe the natural language of cunning creatures, it appears to me that the primitive faculty is the instinct to conceal. Cunning animals conceal with adroitness. The cat pretends to be asleep, and the moment the cook's back is turned, he runs away with the meat. Mice he watches for, without the slightest motion of body. The dog, to keep a bone to himself, hides it in the ground. Cunning men, in a thousand ways, betray the instinct to conceal; they often will utter a falsehood, to get at the truth; exaggerate the good, to learn the evil; and attribute suppositious virtues to those whose faults they are anxious to know. The primitive faculty, therefore, is always the same, whether the concealment refers to intentions, ideas, persons, or things. I propose to call this propensity, *secretiveness*."

In all these actions of men and brutes, I see only cunning, dissimulation. Why crowd the language with terms, the meaning of which nobody can divine?

"Cunning," says Demangeon, "appears to me to be a conspiracy of all the intellectual organs against the effects of force, malevolence, and injustice. Hence force and power, as such, disdain its use, and have recourse to it, only when incompetent to undertakings of doubtful success, or attended with danger. Cunning consists in eluding injurious measures, and preparing successful ones, the knowledge of which, by Gall and Spurzheim, is attributed to many faculties. There seems to me a contradiction, in supposing that this is able to elude and to obtain, what it is not able to know. Our authors place the organ of cunning, as well as the organs of theft and circumspection, in a lateral swelling of the brain. But this swelling indicates only a voluminous brain, and, consequently, faculties more numerous and more largely developed, which ought to be accompanied with more intellectual resources, and, consequently, a greater aptitude to foresee and obtain success of every kind.

This shows how easily we may be imposed upon respecting the situation of the organs, for want of precise ideas relative to the faculties to be attributed to them. I, therefore, had some reason for saying, that, to determine the faculties, we must know exactly their sphere of activity; we must have determined them rigorously. Here, then, is the mountain, at whose foot our authors stand: and we would take it kindly of them, if they would turn about, and show us some way of climbing over it.

"But this propensity encroaches on the sphere of circumspection, and is therefore supererogatory; or, it leads to stratagems, and to all kinds of surprise and deception, that the organs of courage, of destruction, of the generative power, of theft, love of offspring, &c., can suggest; and again it is supererogatory. I conclude from these reflections, that neither cunning, nor the propensity to conceal, can constitute a special faculty, and are not to be considered as general attributes, or acts of free-will."

In each objection, the reasoning of Demangeon takes, and is obliged to take, a different turn, by which the previous objections are subverted. Just now Demangeon reduced all the instincts, all the faculties, the generative instinct, philoprogenitiveness, attachment, courage, carnivorous instinct, circumspection, theft, &c., to a simple conservative instinct; and, as all the functions of the organism, even those of the five senses, are designed for our self-preservation, ought not the conservative instinct to be considered the immediate source of all the other instincts and faculties? In his objections to cunning, Demangeon, in place of all the faculties and propensities, would substitute free-will. It is this free-will, which, in the cuckoo, refuses to take care of its offspring; which, in the squirrel, constructs a nest; which, in the stork, migrates; which, in the nightingale, sings; which, in the ferret, sucks the blood of the rabbit, &c. Give the name of *mind*, or *soul*, to Demangeon's free-will, and we shall again be able to dispense with the brains and its different organs altogether. We

have no fear of being charged with inconsistency in relying upon a more voluminous brain, to explain the phenomena of a more complex, and wider intelligence; and, if this intelligence is manifested by instincts, propensities, and faculties altogether different, according as the brain is more voluminous in the inferior-posterior regions, or the superior-anterior, or lateral regions, we have only to say, that it is the free-will, which, independently of all these conditions, impels to gratification, to acts of cunning, to murder and robbery, or to religious thoughts, and philosophical conceptions. Cunning appears to Demangeon, to be a conspiracy of all the intellectual organs against the effects of force, malevolence, and injustice. This high moral conception, so admirably fitted to cloak the little intrigues of coquetish women, is perfectly established by the conspiracy of so many intellectual faculties in certain idiots and maniacs, who, entirely destitute of common sense, in all other respects, are inexhaustible in the arts of cheating and cunning. This conspiracy of the intellectual organs is also very striking in the artifices of the fox, the diving birds, the sparrow, and particularly the hare, which so often deceives the best trained dogs, and all the intellectual organs of the oldest hunters. Lo, the sublime achievements of reason, when it exercises its powers at the expense of observation!

VII. Sentiment of Property; Instinct of Providing: Covetousness; Propensity to Theft, (*Eigenthumssinn, Hang zu stehlen.*)

History.

The errand-boys, and others of that class of people, whom I used to assemble in my house in great numbers, would frequently charge each other with petty larcenies, or, as they called them, *chiperies*, and took great pleasure in pointing out those who excelled in these prac-

tices; while the *chipeurs* themselves would come forward, proud of their superior address. What particularly struck me was, that some of these people showed the utmost abhorrence of thieving, and preferred starving to accepting any part of the bread and fruits their companions had stolen: while the *chipeurs* would ridicule such conduct and think it very silly.

When I could assemble a considerable number, I would often divide them into three classes. The first would include the *chipeurs:* the second, those who had an abhorrence of theft; and the third, those who regard it with indifference. On examining their heads, I was astonished to find that the most inveterate *chipeurs* had a long prominence, extending from the organ of cunning, almost as far as the external angle of the superciliary ridge; and that this region was *flat* in all those who showed a horror of theft; while, in those who were indifferent about it, the part was sometimes more and sometimes less developed, but never so much as in the professed thieves.

These observations were not long in impressing me with the idea, that the propensity to steal might also be the result of organization. All the subjects of my observations were mere children of nature, left exclusively to themselves. None had received the least education, and their conduct, therefore, might well be regarded as the result of organization. Those who detested stealing, were often the very ones whose education had been completely neglected. The wants and circumstances of all of them were nearly the same, and the examples set before them were the same. To what cause, then, could the difference be attributed?

At this time I was physician to the Deaf and Dumb Institution, where pupils were received, from six to fourteen years of age, without any preliminary education. M. May, a distinguished physiologist, then director of the establishment; M. Venus, the teacher; and myself, had it in our power to make the most exact observations

on the primitive moral condition of these children. Some of them were remarkable for a decided propensity for stealing; while others did not show the least inclination to it. The most of those who had stolen at first, were corrected of the vice in six weeks; while there were others, with whom we had more trouble, and some were quite incorrigible. On one of them, were several times inflicted the severest chastisements, and he was put into the house of correction; but it was all in vain. As he felt incapable of resisting temptation, he wished to learn the trade of a *tailor;* because, as he said, he might then indulge his inclination with impunity.

The more active and incorrigible the propensity to theft in these young people, the more indubitably was my first observation confirmed. Here, too, education could not come into the account; for, from the moment they came into the institution, their wants, their instruction, and the examples before them, were all the same. I was therefore obliged to conclude, that the propensity to steal is not an artificial product, but *is natural* to some people, and inherent in their organization. I took casts of the heads of all the confirmed thieves, to increase my means of comparison.

At this time, there was in the house of correction, a lad, fifteen years old, who had been a thief from his infancy, notwithstanding all the punishment he had received, and was finally condemned to confinement for life, as absolutely incorrigible. He is the same mentioned in vol. i. sect. v. His head was small and unsymmetrical, (pl. xxvi;) and the forehead very retreating. His intellectual powers were so far below mediocrity, that I was astonished the incorrigible nature of his thieving propensity was not always attributed to this circumstance. In him, the region just mentioned, is very prominent, and the corresponding cerebral part was the only one very active; and as its activity was not balanced by the action of other parts, and the subject was incapable of higher motives, it became predom-

inant. This case was conclusive proof to me, that the propensity to theft, is produced by a particular cerebral part, or has its proper organ.

Two citizens of Vienna, who had always lived irreproachable lives, became insane, and from that time they were distinguished in the hospital for an extraordinary propensity to steal. They wandered over the hospital, from morning till night, picking up whatever they could lay their hands on, —straw, rags, clothes, wood, &c., — which they carefully concealed in the apartment which they inhabited in common; and though lodged in the same chamber, they stole from each other. In both, the cerebral part in question, was very much developed, and the corresponding region of the skull very prominent. The case of these two persons proves, that a man, whose intellect is not quite too feeble, may, in health, overcome the unfortunate impulses of certain organs. It proves, also, that the propensity to steal, proceeds from a particular cerebral part; for a quality which, independently of all others, may be carried to such a pitch of activity, as to deprive the individual of all control over the actions that result from it, must be referred to a cerebral part, independent of all the rest.

These facts were enough to induce me to pursue the natural history of the propensity to theft. My readers being probably acquainted with all that remains to be said on this subject, it will not be difficult to convince them, that the propensity to theft is innate, and has its proper organ.

Natural history of the propensity to steal.

The following cases, from the fifth section of the first volume, page 256, conclusively prove, that the propensity to steal is not the result of moral depravement, nor of a defective education, but is an inherent quality in human nature.

Victor Amadeus I., King of Sardinia, was in the con-

stant habit of stealing trifles. Saurin, pastor at Geneva, though possessing the strongest principles of reason and religion, frequently yielded to the propensity to steal. Another individual was, from early youth, a victim to this inclination. He entered the military service, on purpose that he might be restrained by the severity of the discipline; but having continued his practices, he was on the point of being condemned to be hanged. Ever seeking to combat his ruling passion, he studied theology and became a capuchin. But his propensity followed him even to the cloister. Here, however, as he found only trifles to tempt him, he indulged himself in his strange fancy with less scruple. He seized scissors, candlesticks, snuffers, cups, goblets, and conveyed them to his cell. An agent of the government at Vienna had the singular mania for stealing nothing but kitchen utensils. He hired two rooms as a place of deposit; he did not sell, and made no use of them. The wife of the famous physician Gaubius, had such a propensity to pilfer, that when she made a purchase, she always sought to take something. Countesses M., at Wesel, and P.. at Frankfort, also had this propensity. Madame de W. had been educated with peculiar care. Her wit and talents secured her a distinguished place in society. But neither her education nor her fortune saved her from the most decided propensity to theft. Lavater* speaks of a physician, who never left the room of his patients without robbing them of something, and who never thought of the matter afterward. In the evening his wife used to examine his pockets; she there found keys, scissors, thimbles, knives, spoons, buckles, cases, and sent them to their respective owners. Moritz, in his experimental treatise on the soul, relates with the greatest minuteness the history of a robber, who had the propensity to theft in such a degree, that, being "in articulo mortis," at the point of death, he stole the snuff-box of

* Physiognomie, Edit. de la Haye, t. ii. p. 169.

his confessor. Doctor Bernard, physician of his majesty the king of Bavaria, speaks of an Alsatian of his acquaintance, who was always committing thefts, though he had every thing in abundance, and was not avaricious. He had been educated with care, and his vicious propensity had repeatedly exposed him to punishment. His father had him enlisted as a soldier, but even this measure failed to correct him. He committed some considerable thefts, and was condemned to be hanged. The son of a distinguished literary man offers us a similar example. He was distinguished among all his comrades for his talents; but, from his early infancy, he robbed his parents, sister, domestics, comrades, and professors. He stole the most valuable books from his father's library. Every kind of means was tried to correct him: he was sent into the service, and underwent several times the most rigorous punishments: but all was useless. The conduct of this unhappy young man was regular in all other respects; he did not justify his thefts; but, if they addressed to him on this subject the most earnest and the most amicable representations, he remained indifferent; he seemed not to understand them. The almoner of a regiment of Prussian cuirassiers, a man otherwise well educated and endowed with moral qualities, had so decided a propensity to theft, that on the parade he frequently robbed the officers of their handkerchiefs. His general esteemed him highly; but as soon as he appeared, every thing was shut up with the greatest care; for he had often carried away handkerchiefs, shirts, and even stockings belonging to the women. For the rest, when he was asked for what he had taken, he always returned it cheerfully. M. Kneisler, director of the prison at Prague, once spoke to us of the wife of a rich shopkeeper, who continually robbed her husband in the most ingenious manner. It was found necessary to confine her in gaol; but she had no sooner escaped than she robbed again, and was shut up for the second time. Being set at liberty, new thefts caused her to be condemned to a third detention longer

than the preceding. She even robbed in the prison. She had contrived, with great skill, an opening in a stove which warmed the room, where the money-box of the establishment was placed. The repeated depredations she committed on it were observed. They attached bells to the doors and windows to discover her, but in vain ; at length, by the discharge of pistols which went off the moment she touched the box, she was so much terrified that she had not time to escape by the stove. In a prison at Copenhagen, we have seen an incorrigible robber, who sometimes distributed his gains to the poor. In another place, a robber shut up for the seventh time, assured us with sorrow, that it did not seem possible to him to conduct otherwise. He eagerly begged to be retained in prison, and to be furnished with the means of gaining his living.

To these facts, I would also add some others. At Munster, a man was condemned to imprisonment for eight years, on account of some robberies. He was no sooner liberated, than he committed fresh depredations, and was thereupon imprisoned for life. Sixteen years afterwards, he revealed a conspiracy which had been formed among the criminals, and it was proposed to reward him by setting him free. The judge objected to this, that it would be dangerous to do so ; as the man himself had previously assured him, that his thievish propensity was so rooted in his constitution, that he could not by any possibility resist it. About a year after, he escaped from prison, betook himself to his old practices, and was again arrested ; shortly after which, he hanged himself. "During the ten years that I had known this man in prison," said Wernsking, from whom we had these facts, "he was remarkable for activity, and devotion during divine service ; but I learned, after his death, that he was constantly committing petty larcenies, even in the prison itself."

In the most of these cases, the persons were mastered by the unhappy propensity to theft, from no defect of education, or weakness of intellect, nor even necessity. Nei-

ther have I quoted these cases, because they are rare; for the like may be daily seen, though they are always wrongly considered, because people start from the idea that our actions are solely determined by our will. What can be more important to the moralist, legislator, and judge, than a knowledge of the true sources of criminal actions?

Undoubtedly, defect of education, superstition, bad examples, &c., are just so much food for vicious propensities. We have always observed, as has been already mentioned, that crimes of every description are frequent in a country, in proportion to the neglect of education and instruction. Still these unfavorable circumstances would not produce the propensity to theft, if it were not inherent in our nature.

Among all nations, and at all times, theft has held the most conspicuous place among offences. Few men can lay their hand on their heart and say, "I never stole," especially if they go back to their childhood. In the majority of men, the propensity to theft must be incessantly combated by powerful motives, penal enactments, and religious sanctions. What variety in the forms of theft! How long the chain, from the most petty larceny to rapine and piracy!

In war and litigation, in the administration of the property of orphans and minors, in commercial transactions, in almost every mode of gaining a living, even in many establishments created or protected by the government, such as lotteries, games of chance or skill, &c., sponging, cheating, theft, piracy, and pillage, may be seen in every direction. The most ardent panegyrist of human nature has never succeeded in freeing it from the stigma of an almost universal propensity to fraud.

The whole difference consists in the amount. In one, the propensity is held in check by a happy organization; in another, by the influence of education, the force of habit or the fear of punishment; in a third, the vicious disposition is produced by an organ so powerful, that the same motives, which would have made any body

else an honest man, have no influence on him. It is the *power* of this propensity to steal, towards which the attention of the legislator and the judge should be directed. The theft, or value of the object stolen, are accessory circumstances; it is the gradation of the propensity, the useless attempts to reform, the relapses, the indifference of the criminal, the absolute want of repentance, the effrontery and insolence with which robbers boast of their crimes,—these are what should require the attention of the observer.

I find nothing better suited to the nature of man, than the institutions of certain states. For the first offence, the criminal is removed, not to prison, but to an establishment, whose object is to reform him; and when he has been prepared, by moral and religious instruction, to lead a regular life, and can provide for himself, he is restored to society. At each relapse, however slight, the penalty is increased, and it is not, till after numerous relapses prove that he is incorrigible, that he is excluded forever from society. Before pronouncing this final sentence, every chastisement is avoided, that would prevent the individual from re-appearing among his fellow-men, in case he should alter his conduct. Exposure in iron collars, branding, advertisements in public prints, &c., we look upon as directly contrary to the end proposed, anti-philanthropic, and pernicious. When will wise legislation, like that just mentioned, be generally adopted? Alas! how far are we yet from it in a country, where, almost daily, they prevent the penitent offender, by infamous punishments, from returning to the paths of honor! He is forced, we may say, to support his existence by banding with criminals, whom society has rejected from its bosom. All those robber-bands, composed of men marked with the seal of infamy, that pillage on the highways, and even in towns, are a striking proof of this sad truth. We are forced to acknowledge, that the means at present employed for reforming offenders are insufficient. In the *Annales politiques, morales et litteraires*, 1818, Oct. 24, it is stated, that, "the case

that occupied the Court of Assizes to-day, most clearly and strikingly proves, that the majority of liberated criminals finally die impenitent. Whether they are debased by their residence in prison, or are naturally inclined to crime, they nearly all re-appear before the Court of Assizes, stained with new crimes."

Natural history of the propensity to Theft in disease, with remarkable weakness of understanding.

Here again I quote some cases, already mentioned in the fifth section of the first volume.

Among the young boys who were brought to us in one of the prisons of Berlin, (Stadt-Vogtey,) there was one who particularly attracted our attention. We advised that he should not be set at liberty, because he would not be restrained from a continuance of his robberies. We added, that the best thing which could be done, was to keep him always in a place of security. We communicated our reasons to those who accompanied us. They consulted the register, and found, to their great surprise, that this young boy had, from his earliest infancy, shown the most obstinate propensity to theft. Our adversaries availed themselves of this opportunity, to place in the strongest light what they were pleased to find frightful and dangerous in my doctrine. "To condemn," said they, "a young boy to perpetual imprisonment, because he has committed a theft, what can be more cruel or more revolting to humanity?"

What reason had we, then, to give this advice? I have already made evident, that we ought to consider man in two points of view; first, as having qualities common with animals; that is to say, those of an inferior order; then, as being endowed with the character of humanity, or with qualities of a superior order. I have also shown that man, in virtue of his superior qualities, is capable of subduing and directing his propensities of an inferior order. But, if the qualities of a

superior order are controlled in an extraordinary manner, to such a degree that their free action is prevented, while those of the inferior order, on the contrary, are active, then the animal part of the man predominates exclusively, and the flesh, or the brutal desires, hold in subjection the spirit, or the dispositions of the superior qualities, which are hardly developed. With such an organization for the functions of the soul, which belong to a superior order, the same happens which takes place in regard to each organ whose development is defective; that is, there results a relative imbecility, and, in consequence, the incapability of acting morally; while the propensities of an inferior order act with uncontrolled energy. Such an individual finds himself under the absolute necessity of acting solely from the impulse of the passion which governs him, and his organization often places him in a worse state for self-government than that of a well-organized animal. This imbecility does not always exclude other very active properties which are common to animals, such as that of cunning; so that this same individual, even while abandoning himself to a guilty and irresistible inclination, seems, in this respect, to act with reflection and deliberation. It is thus, that the most stupid idiots often find means the most ingenious to satisfy their brutal wantonness, or their mischievous desires.

Such was the condition of the young robber of whom I have just spoken. The superior organs had but a defective development; that organ, on the contrary, whose too great activity leads to theft, had acquired a great degree of development and energy, and this mischievous quality was likewise seconded by the activity of cunning. This man was short, and thick set; his forehead was very low, depressed back immediately above the eye-brows, very sloping laterally above the eyes, but broad and saliant towards the temples. His physiognomy announced no attention for reasonable subjects: nothing could be there discovered but cunning and malice. Was it, then, very difficult to conclude from

the organization of this simpleton, that he must be incorrigible?

In the history of the propensity to theft, I mentioned the case of a young man, fifteen years old, half imbecile and incorrigible, who died in the house of correction, at Vienna.

"We saw in the prison of Berne, a boy of twelve years, ill-organized and rickety, who could never prevent himself from stealing; with his own pockets full of bread, he still took that of others. At Haina, the overseers gave us a long account of an obstinate robber, named Fesselmayer, whom no corporal punishment could correct. In the prison he stole every thing he saw; and they had put on his arm a card which served as a mark of disgrace, warning others not to trust him. Before seeing him, we anticipated what his organization must be, and our expectation was confirmed at the very first glance. He appeared about sixteen years of age, though in fact he was twenty-six. His head was round, and about the size of a child of one year. This individual was also deaf and dumb, which often happens in cases of mental imbecility."

The following case was communicated to me, by M. Esquirol. "A knight of Malta, the son of an officer, and carefully educated, quitted the army, like all the gentlemen, at the beginning of the French revolution. Having retired to the country, he gave himself up to excessive indulgence in the pleasures of love. When thirty-five years old, his parents and friends perceived that his intellectual powers were beginning to be enfeebled; that he was not so cheerful: that he often lost his memory; and that the object of his passion was a source of extreme chagrin. He became restless, quarrelsome, impudent, insulting men and women, and finally a thief. The propensity to steal was so strong, that, when dining at inns, he would pocket his plate, &c., and his conduct was no different when in the houses of his friends or strangers. He was obliged to travel eighty leagues to get to my establishment; and during his journey, though accompanied by several persons, he always

found means to steal the plates at the inns; and if he could not cram them into his pockets, he would slip them into his boots. At my house, he was permitted to walk, accompanied by his servant, and in every other respect he was rational. He would go into the café, and instead of paying for what he had, would come away with the spoon and cup and saucer in his pocket. At table, I seated him near myself, and the first time he slipped his hand along to get the plate, I stopped him, and exposed him before the whole company. This lesson was sufficient; and, for more than eight days afterwards, he took care to remove his plate towards the middle of the table, either to prevent temptation, or to convince me that he was not stealing it. This disposition to theft was perfectly cured, although his head remained weak."

In the first volume, I mentioned the case of a young man, who, after a severe wound on the temple, was trepanned by Acrel. After leaving the hospital, he, contrary to his ordinary disposition, manifested an invincible propensity to steal. After committing several larcenies, he was imprisoned, and would have been punished according to law, if Acrel had not declared him insane, and attributed his unfortunate propensity to a disorder of the brain.

Natural history of the propensity to steal in insanity.

In the history of this propensity, I have already remarked, that certain maniacs are irresistibly impelled to steal. M. Pinel, also, has frequently observed, that such persons, though models of probity in their lucid intervals, could not help stealing and cheating during the paroxysms; taking every thing they could lay their hands on, entering the cells of the other inmates, and carrying off whatever they could find. I have also mentioned the cases of four women, who, ordinarily, had no inclination to steal, but who, when pregnant, were excited to it by a strong propensity.

The *Journal de Paris*, 29th March, 1816, states,

that, "An ex-commissary of police, at Toulouse, Beau-Conseil, had just been condemned to eight years' confinement and hard labor, and to the pillory, for having, while in office, stolen some pieces of plate from an inn. The accused persisted to the last in an odd kind of defence; he did not deny the crime, but attributed it to mental derangement, produced by wounds he had received at Marseilles in 1815." I am far from wishing to criticise the sentence of the court; but certainly, if the conduct of Beau-Conseil had been irreproachable before he was wounded, and he had really received wounds on the head, either his counsel was inexcusable, in not availing himself of these facts in his defence, or the court was blamable in not listening to it.

All these cases of irresistible theft, and I might relate many more, will no longer suffer the friends of truth to doubt the existence of an innate propensity to steal. The most scrupulous philosophy must be silent before facts, which all times have presented, and which are still of daily occurrence. All the reproach that has been heaped upon my doctrines, on account of the thieving propensity, have never deterred me from speaking of it publicly. Never should the naturalist so degrade himself by fear, or hypocritical compliances, as to profane the sanctuary of truth.

Thus far, I have conducted my reader by a path to which nature herself had directed me; and I presume that the facts I have related, have awakened in his mind the same painful sensation which they did in mine. In all the other qualities of man, we discover a necessary end, a beneficent institution; while here, we suddenly encounter a propensity, in direct opposition to social order.* But, I may be asked, have we not here one of those cases, where the manifestation of the quality, as

* With regard to Gall's organs of '*theft*' and '*murder*,' the views of Spurzheim are generally adopted by Phrenologists. "We may inquire," says he, "whether stealing is natural; and if so, the effect of a special propensity? To answer in the affirmative, is both irrational and dangerous: irrational, because the Creator could not bestow any

I have observed it in subjects who had it very largely developed, was only the result of its excessive activity, but is, by no means, the fundamental quality itself? Let them continue to follow me in my observations, and they will, to a certain degree, soon see that I am in accordance with nature.

On the innate sentiment of Property.

While embarrassed by the revolting idea of an innate propensity to theft, I thought of the following objection: Theft supposes property, but in nature there is no such thing as property; it is only the result of certain social conventions; therefore, there can exist no innate propensity to theft, nor organ of such propensity.

In all my public courses of lectures, I have noticed this objection, and refuted it. The opponents of organology have universally received it, as an unanswerable argument against the existence of the propensity to steal, and they have been busy in making it known. Although my reply may be found in the numerous works of my pupils; yet all my opponents have been dishonest enough to pass it over in silence, and have made the public acquainted with the objection only, for they calculated upon it for a certain victory. Let us see, therefore, if property does not really exist in nature, and whether property has produced the laws, or the laws, property.

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faculty, absolutely hurtful, on man; dangerous, because it would apologize for acts, punished as crimes by law. Theft must depend upon a certain faculty, and this must be manifested by means of an organ; but theft being injurious, can only be an abuse of that faculty."

In relation to the organ of '*murder*,' Spurzheim says,—"Gall formerly called this organ that of murder, because he discovered it of large size in the heads of two murderers; but no faculty can be named from its abuse. The error Gall committed, however, was natural, for the functions of all the organs are most easily discovered in their state of extreme development, when they are very apt to produce abuses. Such, then, was the origin of this erroneous name of a faculty, whose well-regulated employment is, like that of every other, essential to life." [Ed.]

Property is an institution of nature in brutes.

Brutes have none of those laws and social conventions, from which property is said to result in man; yet property does exist with them, and they have a strong sense of it, too. They have their fixed abode, and the ardor with which they defend it against all usurpation, proves well enough that they consider it their property. When there is any fear lest the soil they occupy, should prove insufficient for their support, they are careful to drive away immediately every intruder. A certain number of chamois will inhabit a certain mountain, upon which they will suffer no other whatever to come. The wolf, fox, hare, marten, &c., occupy a district of a size proportioned to the quantity of nourishment, from which they instantly drive away all intruders. They who imagine that wild beasts wander at hazard through the woods, are deceived; for each of these animals has, in fact, a chosen abode, which it never abandons, unless forcibly driven away from it. When they are obliged to leave it, in the rutting season, or on account of inundations or the chase, they return as soon as circumstances will permit. The same pairs of storks, swallows, nightingales and redbreasts, return in the spring or in autumn, to the same country in which they had passed the season the preceding year, and establish themselves; the storks on the same steeple, the swallows under the same roof, and the nightingales in the same bushes. If another pair of birds attempt to seize the place already appropriated, war is immediately waged against them, and the intruders are forced to depart. These facts are known to every hunter and naturalist, and my own observations have confirmed them. He who would repeat them, must mark the old and not the young ones; for, with the lower animals, as with our own species, the parents remain in their establishment, and the young people go out.

Cows, returning from pasture, are observed, not only to enter their usual stable, but each one to take its own place and suffer no other to occupy it. We see the same thing in respect to geese and pigs. Each one of the thousand bees that come home loaded with honey, enters its own hive, and wo to the pilfering bees that undertake to lay a foreign hive under contribution! With what courage do all creatures defend their nest, their female, their young! What rash intrepidity will not the dog display in his master's house! Warmed, by the sense of property, how boldly he defends his bone against a stronger dog than himself! The stag leading along his harem, with a proud step and a firm look, seems to threaten every one that would encroach on his rights. Among the lower animals, a leader never yields the prerogatives obtained by his strength and address, and sanctioned by all the members of the republic. The dog and cat, in hiding food to be used when hunger returns; and the squirrel, hamster and jackdaw, which collect provisions for the future, undoubtedly have the notion of property in the stores they accumulate. If they have no such notion, why this ardor in collecting provisions, this anxiety to conceal them? Where do we see in nature such a contradiction between the instincts of animals and the end of those instincts? The manners of brutes, therefore, prove that the sense of property is inherent in their nature.

Property is an institution of nature in man.

The opinion is constantly thrown out, even now, that the idea of property is unknown to the savage. "The idea of property," says Cuvier, "does not exist in savages, and they cannot have the same notion of theft as civilized nations have." But, let us see what travellers, such as Lafitan, Charlevoix, and the history of the Caribs teach us on this subject.

In a tribe that subsists by hunting or fishing, the

weapons, tools and skins of an individual, are his only objects of property. but still, they are always property. The nourishment of to-morrow is still living and roaming free in the forests, or concealed in the waters, and it must be taken, before it can become property : and even then, when taken by several who have united to hunt or fish in common, it belongs to the company. It is used for present need, or set apart for the public store ; so that it is still property ; not of one, but of all who helped to acquire it.

All savage nations, which, in addition to hunting, attend to some rude kind of agriculture, as in almost every part of America, always go upon the same principle, in respect to goods and the fruits of the earth.

The women labor in common, as the men hunt in common, and after sharing the work of cultivation, they share the products of the harvest. The extent of soil that is cultivated, as well as the district they are accustomed to hunt over, is considered the property of the nation, but it is not apportioned by it to the individuals of the nation. They go in bands to prepare the soil, sow, plant and reap. The harvest is gathered into the public granary, and finally distributed to the different families for their subsistence. When the nation trades with strangers, the goods even thus obtained are put into the common stock.

In the same way that the skins and the bow belong to the individual. just so do the lodge and its utensils belong to the family ; and. if the women are charged with the domestic cares, it appears that they own the domestic property. The children are considered to belong to the mother in all cases. The males remain in the lodge where they were born, till they marry ; but on that event, they change their abode, and become an acquisition to the family into which they marry. The hunter and the warrior are considered by the mother of the family as part of her wealth, and are reserved for dangers and important actions,— a sufficient proof, certainly, that property exists as well among savages as with us.

The youngest children, who are anxious for playthings, have a notion of property. The boy must have his soldiers, and the girl, her kitchen utensils. What terrible outcries, when other children are carrying off 'my shells, my butterflies, my birds' nests!' We have, each one, his books, pens, and little garden. If we would have the hens, rabbits, and birds well taken care of, they must not be owned in common, but one by him, another by you, and a third by me. Who would trouble himself about the property of another? And when the man has grown up, and become a husband, head of a family, a citizen, and man of business, how could he be expected, without a sense of the rights of property, to display the least activity? How could he desire to possess certain things, unless he supposed a respect for property in others? And, generally speaking, if this sentiment did not exist, how could we conceive of a state of society?

Henry Home* (Lord Kaimes) has already proved, that property is not based on social conventions, but on a particular internal sentiment, and that every encroachment on the property of another, is contrary to another sentiment—that of justice and equity—which is equally innate. Man, in fact, unlike the carnivorous animals, who, when their hunger is appeased, yield themselves to repose, has, independently of the instinct which impels him to seek for nourishment, a desire to possess other things besides. He needs quiet and a mixed diet; and he therefore gives up hunting and fishing, and procures flocks, which furnish him a more certain means of subsistence. He ploughs up a patch of ground, clears it of weeds, sows it and reaps the harvest; thus the land gradually becomes the property of man. He makes provision for the different seasons, and anticipates want; in this respect, he acts like the brutes, obeying a law

* Essays on the principles of morality and natural religion, 3d ed. 1779, chap. vi. Justice and Injustice.

much less liable than his reason, to lead him astray—a natural and innate propensity to make provisions. This propensity, without the sense of property, would be as inconceivable in man as in the brutes. He would be incessantly making provisions, yet knowing beforehand that his trouble would be lost. Would not man, in this case, be in contradiction with himself? Without the sentiment of property and respect for property, there would be only the right of the strongest; and without this sentiment, what should induce even the strongest to appropriate the provision of the weak, the more industrious? So, therefore, the case of him who stores up provisions, as well as he who plunders them, proves the propensity to own property and its foundation in nature. We attach far more value to a horse, an ox, a house, or garden, when they are our own property, than when we have merely the temporary use of them. Whence comes the universal belief of the injustice of theft and piracy, if the possessor have no right of property to the stolen object? Why should we be afflicted with the loss of an object, if we have no sense of the property of that object? It is with this sentiment, as with all other qualities. If nature had not given it to man, we should have had no idea of it, and would never have thought of making laws against theft.

Admitting, however, that the sense of property is innate, our views of the subject become quite different. There are people who, from cupidity, are induced to appropriate the property of another—usurers, cheats, pickpockets, thieves, and pirates. La Bruyere has said—Supposing there are but two men on the earth, who have sole possession of it, and have divided it between them, I am persuaded that a rupture would soon take place from some cause or other, if it were only a dispute about their boundaries. For this reason, every one feels the common sentiment, that property should be secured from the attacks of such plunderers. We make the laws, or rather it is Nature, the Creator himself, that inspires them, while we imagine them to be our own work. The

laws therefore have sprung from the sense of property; not the latter from the former.

Some think, that the wants of society alone would have produced the sense and the right of property. Social conventions may determine, under what conditions we are the legitimate proprietor of a thing, but society cannot give origin to the sentiment nor to the right. I have repeatedly shown, and I shall have again to revert to the subject, that there are no *artificial qualities*. Society presents points of contact, by means of which the activity of the fundamental qualities is displayed; but, it has as little to do with the origin of these qualities themselves, as woman has with the instinct of propagation in man. If man and gregarious animals possess certain qualities suitable to the social state, it is because nature has designed them for the social state. It is only on such an hypothesis, that we can conceive of the existence of society. Sheep, when the sun is hot, put their head under the belly of their neighbor; gregarious species place sentinels, and render mutual aid; bees divide the different tasks among different individuals. The instincts which thus lead these and all animals to act, exist in each individual, before he has lived in society; they remain inactive, when the same individuals are obliged to live solitarily, and are awakened at the moment society is formed. It is proved, therefore, that property and the sense of property, are institutions of nature, in man and brutes; and as theft supposes property, theft is a natural phenomenon in man and brutes.

Every uncivilized nation is a band of robbers, that pillage their neighbors without measure or remorse. The cattle in the fields are always fair game, and, in the spirit of such jurisprudence, the coasts of the Egean Sea are ravaged by Homer's heroes, for no other reason than that these same heroes were fond of seizing on the brass, iron, cattle, slaves and women of the surrounding people.

A Tartar mounted on a horse, is a real beast of prey, who knows only where cattle are to be found, and how

far he must go to seize them. The same spirit reigned in all the uncivilized nations of Europe, Asia, and Africa. The antiquities of Greece and Italy, and the fables of all the ancient poets, are full of the examples of its influence. It was this spirit that first impelled our ancestors to enter the Roman empire; and in later times this spirit, rather than respect for the cross, led them into the East, to divide with the Tartars the spoils of the Saracenic empire. Even the lower animals steal, such as the cat, dog, magpie. I know a dog, that will eat only what he has stolen. When these creatures commit a larceny so skilfully as not to be detected, they are extremely delighted. A tame magpie cares nothing for a piece of money given to it, but the moment you hide it away, and pretend to look after it or not to think of it, he will take all the trouble in the world to get possession of it. Here now is an observation that may be repeated daily. So certain is it, that theft is practised by the lower animals, that nature has taught them many means to prevent their being robbed. They hide away, bury in the ground, and watch their property. Every body knows how vigilantly bees guard the entrance of their hive, against all animals whose appetite is excited by their honey; and such precautions could never have taken place, if theft were not a natural phenomenon in the animal kingdom. These considerations, in relation to the sense of property, naturally lead us to the solution of the question, What is the fundamental quality, to which the propensity to steal, belongs?

The fundamental quality, to which the propensity to steal, belongs, is the sentiment of property, or the propensity to make provisions.

The sentiment of property and the propensity to provide for the future, are not only useful, but really indispensable, both in man and in brute. It was impossible to discover the organ of this propensity, confined to its primi-

tive destination; this could be done, only when the organ was excessively developed. But, when the organ has obtained this degree of development and of corresponding activity, the legitimate sentiment of property, the rational propensity to make provision, of acquiring a competence, grows into a cupidity, which engenders a desire for appropriating the goods of another; and, finally, when the organ is developed in the very highest degree, unless prevented by internal and external motives, it degenerates into an irresistible impulse to theft. All these different vitiations are so many degrees of activity in a fundamental propensity, which is essential to the sentiment of property and the propensity to provide. Here, then, we see something similar to the gradual depravement of the instincts of propagation, of defence of self and property, and of the carnivorous instinct. But we do not flatter ourself, with having saved nature from the reproach of creating a propensity to theft, though it is only the result of a very large development, and extreme activity of the sentiment of property. The two conditions exist in certain individuals, in virtue of the laws of organization, without their agency being concerned in it, in the slightest degree.

Seat and external appearance of the organ of Property and the propensity to make provision. Modifications of the manifestation of this organ.

This organ is formed by the convolutions marked viii. pl. viii. When these cerebral parts are very much developed, they produce a prominence on the head and skull, extending in a longitudinal direction, (viii. pl. xxvi. and xxvii.) from the organ of cunning, (ix.) nearly to the outer angle of the superior superciliary arch.

I have constantly found this prominence, in all inveterate thieves confined in prison, in all idiots with an irresistible propensity to steal, and in all those who, otherwise well endowed with intellect, take an inconceiva-

ble pleasure in stealing, and even feel incapable of resisting the passion which forces them to theft. One of my friends, a man of the finest talents, a good husband and father, and remarkably inclined to religious fanaticism, has this organ very large. When he sees scissors, knives, and other similar trifles, he feels a certain uneasiness, (malaise,) until he has put those objects in his pockets. He often has a store of tools of this kind in his house. If they are found there by the owner, he restores them with a hearty laugh; if not, he often presents them to his friends. He appears to be greatly delighted because two of his children have the same propensities, and manifests not the least concern about the influence they may have on their lot. These two children have the same organization as their father.

The physician of the prison at Grætz, in Styria, sent me a box of skulls, and in unpacking them, I was so struck with one of the skulls, which was extremely broad in the anterior-temporal region, that I exclaimed, "My God, here is the skull of a murderer!" The physician observed in his letter, that "the skull marked ***, belonged to N***, an incorrigible thief;" and yet he had not been able to discover in the skull the protuberance I designated as the organ of theft. Pl. xxvii. presents a front view of this skull; pl. xxviii. a profile view. We have never seen the organs, whose great activity disposes to theft, cunning, and murder, more largely developed than they were here.

In Ackermann's collection, we saw the skull of a horse-stealer, shaped very nearly like that represented in pl. xxviii., that is, flattened on the top and in front, and very broad in the temporal region. In the prison at Brucksal, we saw a skull precisely similar, which also belonged to a horse-stealer. In examining those who were confined in this establishment for a second offence in stealing, we found they all had the organ very much developed. In the prison at Bern, they brought me a man, thirty years old and over, and asked my opinion of his head. I found the organ in question very prom-

inent, and they then told me that this person was condemned to death for repeated thefts, and many escapes from prison. I found this organ just as large in two inmates at the prison at Hamburgh, called *Frohnerey*. One was the robber Zander, well known in the country; the other, Paul Peterson, was also an inveterate robber. At Marburgh, we found this organ extraordinarily large in three notorious robbers; one of the three and a woman, in whom the development of this organ was very well marked, had stolen from their infancy, notwithstanding all the punishments they had received. They laughed most heartily, whenever their thefts were spoken of; and so far were they from showing any repentance, that they related, with infinite zest, all the details of their thieving tricks.

At Manheim, the most incorrigible robbers, and those who have oftenest relapsed, are confined in the same establishment. In all, we found the organ of the sentiment of property, largely developed. We were particularly struck with its size in an old man, of whom I have already spoken, who was imprisoned for the seventh time, and who declared, with tears in his eyes, that it was impossible for him not to steal. It would be easy to add a hundred other cases, besides those I have related, and some of them have been mentioned while treating of the organ, whose excessive activity determines the propensity to murder.

It is with this organ, as with all the rest, climate and external circumstances appear sometimes to prevent, and sometimes to favor, its development. This organ is very small in the skulls of Caribs, that I have had an opportunity of seeing, although they were flattened before and on the top, and this people are said to have but little propensity to steal; and, therefore, says Rochester in his *History of the Antilles*, when they are robbed, they always insist that it must have been by a Christian. The Negroes are also little prone to steal, and in them the organ is moderately developed. I saw among the Spanish troops, that both the Arragonese and Castilians

have the anterior temporal region a good deal flattened; and I was assured, that they were the most faithful servants, and equally incapable of stealing as of lying. Very different are the Calmucs, who have always been known for thieving and bad faith; and, accordingly, Blumenbach, speaking of their skulls, observes, that they swell out on the sides, *capita ad latera exstantia*. This remark is perfectly substantiated by two Calmuc skulls in my collection. If, in future, travellers would observe the organization of different people, and compare them with their manners, qualities, and vices, we should soon have the reality of this organ confirmed by a multitude of observations.

The propensity to theft is differently modified, according to its combinations with other very active propensities; but, in this subject, I must be contented with a few general views. When the instinct of theft and that of self-defence are both very active, the robber will despise ordinary larcenies: nothing less than burglary will satisfy him, and he will glory in the success of his enterprises, in spite of the danger which accompanied them. Heluin, the subordinate of Lepelley, united courage to the instinct of theft, and was therefore willing to be the mercenary agent of the blood-thirsty Lepelley. Bouhours, besides the instinct of theft in a remarkable degree, had considerable courage, and a pretty large instinct of murder. With her, homicide was merely a means, her main object being to rob. Robbers, endowed with great courage, are generally the most dangerous: and when to courage is joined the instinct of murder, the combination produces the most sanguinary brigands, like those of Cartouche, Schinderhannes, Picard, Storzenbecker, and the wretches of the Auxerre band.* The addition of cunning produces

* "Chaillard, called l' Eveillé, (*The Vigilant,*) declared an outlaw, was long the terror of this commune and the vicinity. Many attempts had been made to arrest him, but in vain. His habitation, which had several outlets, was a kind of fort, from which he defied all pursuit; he

pick-pockets, cheats, forgers, receivers of stolen goods, both male and female, (for women are still more disposed to this crime than men,) and those fellows, who raise money by telling people where they may discover treasures. When cunning predominates over the instinct of theft, the thief is often satisfied, provided he can steal with skill and address; and, like the magpie, it is indifferent to him whether he shall keep his stolen goods, of which he makes no use, or restore them, even with pleasure.* When the instinct of the love of offspring and that of attachment, are combined with that of theft, the first determines the father or son to rob, to prevent those whom they love, from perishing with hunger,—a very commendable motive, and one which ought to

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seldom went out of it, and never, unarmed. The inhabitants of the district would throw no light on his movements, so well persuaded were they that the very first suspicion would bring down destruction on its object. To threaten the authorities with his vengeance, he announced, that they would soon see him at the head of fifteen determined men like himself.

It was all important to prevent such a project. On the 11th, at 10 o'clock in the evening, a considerable force marched to the brigand's retreat. It was composed of a detachment of the legion of Vaucluse, of five mounted chasseurs and a brigade of gens d'armes. Chaillard's house was surrounded, sentinels placed at all the outlets, and on the roofs of the neighboring houses; and as soon as the day dawned, the leader of the detachment, followed by the gens d'armes, pushed into the wretch's den, and summoned him to surrender. He instantly disappeared, and a moment after, was perceived intrenched in a donjon, on the top of a little square tower, and pierced on each side with loopholes. He fired on the troop, and his first victim was a fusileer on the roof of a house, and another soldier fell soon after, grievously wounded. Chaillard's fire was so well sustained, that it was impossible to approach his house without exposing the troop to fresh losses. Finally, after a fusilade of four or five hours, he was shot in the arm by a ball, and a few moments after, one of the gens d'armes shot him dead with his carbine. In the donjon were found three fusils, and three pairs of pistols, six bundles of cartridges, two bags of balls, a little bag of flints, about four pounds of bread, and a demijohn of water."—*Journal des Maires*, 22*d* Sept. 1818.

* In those exorcising scenes, got up by several cunning thieves together, to cheat their dupes by degrees out of the money which they have promised them, the one that is endowed with a large development of the organ of *theosophy* takes the part of the priest, to conjure up the devil.

extenuate the crime.* When the robber is, at the same time, strongly impelled to travel by reason of a large development of the sense of locality, he will lead the life of a vagabond, and serve as a guide and a spy to robber-bands. The robber endowed with a great activity of benevolence, will distribute the products of his larcenies among the poor; and, as it is repugnant to his feelings to wrong private people, he will rob churches, and the public treasure. In the Copenhagen prison, called *Das Sklavenhous*, we saw a very cunning and incorrigible thief, Peter Michell, who never stole but to give to the poor; and I have already mentioned a robber in Vienna, who, in consequence of his benevolence, confined himself to robbing churches. If the robber is an artist, or mechanician, he will make false keys, forge writings, and counterfeit money. The robber, endowed with the instinct of attachment and firmness, will die, rather than expose his accomplices. At Chaillot, I was shown a young man, of feeble intellect, who was remarkable for his piety, and had founded several chapels. The moment I saw him, I pointed out to M. Danécy, and to the others who accompanied me, an extreme development of the sense of property, which considerably astonished them, since they had merely considered him a religious bigot. Subsequent inquiries, however, disclosed the fact, that he was a consummate thief, and had even stolen the furniture of the chapels he had founded.

These modifications are infinitely numerous, and, by

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* There was stolen from the church, at Mauleon, (Lower Pyrenees,) a ciborium, on the night of the 8th or 9th of June last; on the morning of the 7th of this month, a ciborium, of double the value, was found in a cross-aisle of the church, and in it the following billet:—

"As soon as I could sell a part of the grain which I have reaped, I spared no pains to repair the crime which the necessities of my six children, who were near perishing with hunger, induced me to commit. It is impossible to find me out; and, therefore, if I have now satisfied God, whose church I have aggrieved, I pray that all farther proceedings may be stopped."—*Journal des Maires, 22d Sept.* 1818.

knowing the reciprocal influence of the organs, I have often astonished the people who have accompanied me to houses of correction.

VIII. Pride, hauteur, loftiness, love of authority, elevation. (*Stolz, Hochmuth, Hersch-sucht.*)

History of the Discovery.

A beggar attracted my attention, by his extraordinary manners. I reflected on the causes, which, independently of an absolutely vicious conformation, or of misfortunes, could reduce a man to mendicity, and believed I had found one of the chief of them in levity and want of foresight. The form of the head of the beggar in question confirmed me in my opinion. He was young, and of an agreeable exterior, and his head, in the region of circumspection, was very narrow. I moulded his head, and, on examining it with attention, remarked on the upper and back part of the middle line, a prominence extending from above downwards, which could arise only from the development of the brain beneath. I had not previously observed this prominence in other heads, and, for this reason, I was very anxious to discover what it indicated. His head, moreover, was small, and announced neither strong feelings, nor much intellect. After many questions addressed to the beggar, with a view to discover the remarkable traits of his character, I requested him to relate his history. He said he was the son of a rich merchant, from whom he had inherited a considerable fortune: that he had always been too proud to condescend to labor, either for the preservation of his fortune, or the acquirement of a new one, and that this unhappy pride was the sole cause of his misery. This reminded me of persons who never cut their nails, in order to convey the idea that they are not obliged to work. I made several remarks to him, and let him know that I doubted his veracity; but he always

reverted to his pride, and assured me that, even now, he could not resolve to follow any kind of labor. Although it was difficult to conceive how pride should cause a man to prefer begging to working, yet I was led by this person's repeated assurances, to reflect upon the sentiment of pride.

I very well recollected the grave and haughty air with which one of my cousins would draw out his handkerchief, fold it up, and return it to his pocket. He was seven years old, and I was hardly six, yet I was disgusted with his proud and pompous airs. He also scorned all the occupations in which our family were accustomed to engage, and wished to learn nothing that was going on; he wished to enter the army. A prince in Vienna was remarkable for his ridiculous pride, his stiff gait, and his practice of constantly quoting his ancestors. Happily, he was bald in the region of the head, where I had noticed the prominence in the mendicant's head, and I thus assured myself, that he had the same conformation. These facts were sufficient to produce the idea, that pride is a fundamental quality, connected with a particular organ of the brain. I cannot believe it necessary to prove to my readers, that pride, loftiness, hauteur, are innate, and not acquired qualities. Every one, within the circle of his acquaintances, can find examples of proud and haughty men, and, consequently, proofs of my assertion. I shall, therefore, expose very briefly the natural history of pride.

Natural History of Pride, Hauteur, Good Opinion of One's Self in health.

Pride, arrogance, disdain, self-sufficiency, presumption, insolence, &c. are all derived from the same source. Modified by different degrees of intensity of action, and by the varied influence of other qualities, they are all the manifestation of the same organ. I pass by in silence, therefore, the discussions of grammarians and other

authors, on the force of each of these modifications, and proceed to examine the parts that each does and ought to perform in the human species.

"All men," says Charles George Leroy, "incline to despotism, but, as wishes without hope are seldom durable, this tendency to despotism is limited, in the great majority, by a feeling of impotence, of obtaining an elevated rank in the class to which they aspire. The only result, however, is, that every one is excited, vexed, and harassed, for his whole life, by an uneasy desire of elevation. The idea of distinction once established, it becomes predominant, and this subsequent passion annihilates that which gave rise to it. From the moment a man compares himself with his neighbors, and attaches some importance to their regard, his real necessities are no longer an object of his attention or his measures. If the reality is denied, he wishes at least the appearance; hence, for the most part, results the love of outward decorations and of every thing calculated to give to others an impression of power. If he cannot expect to draw upon him the looks of the universe, or a whole nation, he is contented with being an object of remark to his neighbors, and of overtopping his equals, and thus his happiness arises from the concentrated attention of his little circle. This desire of rising above the place assigned to us, seems to be a contradiction to that proneness to servility, which is observed in most men, and which is also but a consequence of the love of power. We crawl at the foot of the throne, in order that we may still be above the crowd of heads which we love to bow down. No other result could be expected, than that the lowest slaves, in the view of their superiors, should be the haughtiest despots among those whom fortune has placed beneath them; and thus, in fact, is the constant phenomenon. The vizier humbles himself in the presence of his master, yet puts on the disdainful airs of the Grand Seignor before the pachas."*

* Lettres philosophiques sur l' intellignce et la perfectibilite des animaux. Nouvelle edition à Paris, 1802, p. 187, 190.

This internal sentiment, according as it is combined with different qualities, is manifested in so many different ways, that it seems sometimes to be in contradiction with itself; yet still, whatever form it may assume, it is always pride, haughtiness. One, like Antisthenes, covered with rags, and with not a sous in the world, feels it dishonorable to work for a livelihood, looks at every thing around him with contempt and disdain, thinks nothing worthy of his attention, and, in the fulness of his self-sufficiency, remains completely inactive as to all outward things. Another, puts no limits to his insolence; every thing above him, irritates and wounds him. With contempt in every look, and envy gnawing at his heart, he tramples every thing under foot, feels beyond the control of nature's laws, and, by statues, monuments, and temples, takes his place, even while living, among the immortal ones. Pride led Philip II. to compare the loss of twenty thousand men with that of a brook, and, under the dominion of the same sentiment, Aurelian chained vanquished kings to his triumphal car, and Septimius trampled upon the dead body of his enemy. Pride, too, under the form of generosity and magnanimity, induced Marcus Aurelius and Henry IV. to pardon traitors in their power. Here, pride is mortified with the slightest offence, or even indifference; there, it braves all attacks of its enemies, which only increase the opinion of its high importance.

There are certain men, with heads and hearts sufficiently strong, who are so deeply impressed with a sense of their own value, and so independent withal, that they know how to repel every external influence that tends to subject them. As far as practicable, they choose the freest countries to live in, and follow an employment that renders them independent, and exempts them from the caprices and favor of the great. That domination over their inferiors, which would lead to slavery under an absolute master, would be insupportable to them. The honors and distinctions that belong to merit, are humiliations in their eyes, when lavished on insignifi-

cance. If they prosper, it is only by their own efforts; like the oak, they are sustained by their own strength, and to their own resources would they be indebted for all that they have. This is a bold, high-spiritedness, that has not yet degenerated into pride—a merit, rather than a defect; often the companion of great virtues, the enemy of all meanness, and the support of courage in adversity.

Under whatever form pride may appear, it is no less indispensable. As man is designed for the social state, some must be born to command, and some to obey. Master and slave;—such are the two conditions of uncivilized people, and, even where man pretends to have reached the height of civilization, each rash attempt to shake off the yoke of authority, proves him incapable of liberty. It is not true, that all men are born equal, and are destined to exercise the same reciprocal influence. Nature has allotted to each one a different station, by giving them a different organization, inclinations, and faculties. The slave-born man may rise to the master's rank, if endowed with talents, worth, courage, and a domineering spirit; and he who is clothed with authority at his very birth, unless he knows how to preserve the gifts he has received from the caprices of fortune, will descend to the rank of a slave.

Observe children at their sports. There is always one who arrogates authority over the rest. He becomes a general, minister, and legislator, without either he or the rest suspecting it. The same thing takes place in schools and families. We every where encounter disdain, self-sufficiency, presumption, haughtiness, by the side of modesty, humility, submission, and even meanness. In civil and military institutions, we see only chiefs and subordinates, and power gradually concentrating, comes at last, willingly or forcibly, into the hands of one. Such is the fate of governments of every description, and associations of every kind. Even in republics, there is always one man from whom public opinion emanates. The very ones to whom the mon-

archical form of government is so revolting, are moved by envy and jealousy, their own spirits being excited by a thirst for power. Those, also, who trample upon all social order, robbers and banditti, testify in favor of the established law of nature. The one in whom the thirst for rule is strongest, puts himself at their head, and his comrades acknowledge him for their captain and leader.

Let those who may still be inclined to take pride, spirit, or love of independence for an acquired quality, look at savage and uncivilized people. All feel their equality, and are warm in the maintenance of their rights. Even when they follow a chief in the field, they suffer him to pretend to no formal command. They are not bound by his orders, and they march, not in consequence of a military engagement, but of mutual faith, and warmed by an equal ardor for the success of the enterprise. Among the Iroquois, and other nations of the temperate zone, the titles of *magistrate* and *subject*, of *noble* and *plebian*, are as well known as those of *rich* and *poor*. The Caribs, even after choosing a military chief, take good care to confer on him no civil authority. Their captain is not called in to decide their domestic disputes; the terms *jurisdiction*, and *government*, are not in their language. Even in the midst of pillage, glory is their principal object; the spoils of the vanquished are, to them, only the pledge of victory. Tribes and nations are their prey, but the solitary traveller, from whom there is nothing to gain, unless it be a reputation for generosity, they suffer to pass without insult, or even treat sumptuously.

The rude nations of the West, preferred death to captivity in their wars. More than once, when the Roman armies were pouring into captured cities, or forced entrenchments, they found the mother slaying her children, that they might not fall into the hands of their enemy; and the father shedding the blood of his family, and ready to plunge the dagger into his own bosom.

Among the North American Indians, courage is the principal point of honor. It is this that animates alike

the prisoner under the most painful tortures, and the torturers themselves. Indeed, they practise most cruelty upon those, whom they are desirous of treating with most consideration, to give them an opportunity of displaying all the energy of their courage. On the cowardly, they inflict a speedy death, by the hands of women. They disdain, as mercenary and vile, every occupation and enterprise which does not present dangers to be confronted, and glory to be acquired.

Thus every thing concurs to prove that pride, hauteur, love of authority, are innate in man; and, consequently, that this sentiment is founded upon a particular organ. The phenomena presented by disease, will convince us still more strongly of this truth.

Pride, Hauteur, Love of Authority in disease.

In conformity to principles, I have more than once announced, we may infer, that when, in disease, some particular quality is manifested in a much higher degree of activity than the others, it is fundamental. But in insanity, pride and haughtiness are frequently carried to an extreme degree. "It is common," says Pinel, "to see alienation accompanied with a presumptuous tone, and every feature swelling with pride, only during the paroxysm, and as a symptom peculiar to it. This same propensity, excessively active even from early youth, and inherent, it would seem, in the constitution, may be gradually increased, till it becomes the cause of real insanity. A tall, middle-aged man was remarkable for the harshness of his expressions and answers, as well as for his austere manners and violent gusts of passion. His looks and features bore the impress of the most haughty, gloomy, and morose spirit; his frame was agitated with continual restlessness, and bitter reproach and invective were liberally bestowed on every body around him. His savage misanthropy was augmented also by misfortunes in his business, and then his insanity burst forth.

He drew bills of exchange for enormous sums on his banker, as well as upon other houses entirely unacquainted with him, and soon after, he was confined for madness. He manifested the same pride in his confinement, and gave orders with all the arrogance of an Asiatic despot. He finally believed that he was Chancellor of England, Duke of Batavia, and a powerful monarch." (*Dr. Perfect, Annals of Insanity.*)

M. Fodéré ran great risks from a melancholic patient, who believed that he was the Eternal Father, because, he said, he did not evince sufficient respect for him. He afterwards speaks of an erotic mania, complicated with pride. "This kind of melancholy does not always depend on the natural instinct that brings the two sexes together, but it is complicated with sentiments of vanity and pride, that persuade us that we merit something more than human, or, at least, that we have attracted the notice of the first among mortals. We are not captivated by youth, beauty, nor charms, but by power, high rank, costly dress, servants, and wealth. Hence, the notion of some devotees, that they are loved by sylphs or angels, and of some men I have known, who withered away in the persuasion that queens and princesses have regarded them with favor."*

Mental alienation, accompanied with pride, disdain, and arrogance, and that, when the patients imagine themselves to be generals, sovereigns, and even God himself, is a very common form of the disease.

A maniac of this kind, who lived in a house within sight of the dome of the Val-de-Grace, imagined that it was necessary for that edifice to be removed into the garden of the Tuilleries, and that two men were sufficient to perform the removal. He thought he saw a relation of equality, between the strength of two men and the resistance of this enormous mass. They tried to make him sensible of the immense disproportion of one to

* Traité du Delire, T. i. p. 357.

the other, by calculating the weight of each of the stones in this vast structure, but he continued to think that the measure was possible, and even offered to undertake its execution. There soon succeeded extravagances, of another kind. He believed himself proprietor of all the forests in France, and, under this title, issued drafts for many millions on the public treasury. His notions became still more exalted, and he, finally, thought himself the greatest potentate in Europe.*

"A woman, deprived of most of her pecuniary means by the events of the French Revolution, entirely lost her reason, and was sent to the insane hospital. At first, she kept up an incessant chattering, and, in the paroxysms, she would address some incoherent words to the most inanimate objects, and utter the most deafening cries and vociferations. She thought she was granddaughter to Louis XIV., and claimed her right to the throne. Her imagination soon seemed to realize her desires; for she levied contributions and had the army in her pay. If a stranger visited the hospital, she thought it was in honor of her, and that they could be introduced only by her orders. Her companions in misfortune were duchesses and marquises in her suite, and she gave them her orders with a tone of supreme authority."†

"A patient, confined in a private asylum at Paris, during the paroxysms believed himself to be the Prophet Mahomet; assumed an attitude of command, and the tone of the Most High; his eye kindled, and he walked with a majestic step. One day when cannons were fired in Paris, on account of some events of the Revolution, he persuaded himself that it was in homage of him; he ordered those around to keep silence, and could not restrain his joy."‡

"A very worthy man, and father of a family, lost

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* Pinel, op. cit. p. 92. † Pinel, op. cit. p. 109.
‡ Pinel, op. cit. p. 111.

his fortune, and almost all his resources by the events of the revolution, and, from a state of profound sadness, he soon became insane. The symptoms, far from yielding to the ordinary treatment, and even to the most inhuman means, grew worse, and he was sent to the Bicêtre as incurable. Never was maniac so utterly given over to acts of extravagance. With body erect, and nearly bursting with pride, he believed himself to be the Prophet Mahomet, dealt his blows to the right and left, on all who came in his way, and ordered them to prostrate themselves and do him homage. The whole day was spent in proclaiming pretended decrees of proscription and death; his menaces and maledictions were liberally bestowed on the servants, and the authority of the superintendent he disdained and disregarded. One day, when his wife in tears came to see him, he broke out in the greatest rage against her, and would probably have killed her on the spot, had they not gone to her assistance. Mildness, and the gentlest remonstrance, were out of the question with a maniac who considered other men as atoms of dust."*

"Three maniacs, each of whom believed himself to be, and assumed the title of Louis XIV., were one day disputing, with a little too much energy, their respective rights to the throne. The superintendent approached one of them, and drawing him aside, said with a serious look, 'Why dispute with these people, who are obviously mad? Is it not well known, that you alone ought to be acknowledged to be Louis XIV.?' Flattered with this homage, he retired immediately, giving the others a look of the most disdainful hauteur."†

"A woman, extremely imperious, and accustomed to make her husband obey with even more than docility, remained in bed a part of the morning, and then insisted that he should come, and, on his knees, present her with

* Pinel, op. cit. p. 215.

† Pinel, op. cit. p. 220.

drink. She finally believed herself, in the ecstacies of her pride, to be the Virgin Mary."*

"In these patients, the surest indication of approaching cure, is when they begin to perceive the false and ridiculous nature of their pretensions, and become docile under the remonstrances and reasonings of superintendents and physicians?"

"A man in the vigor of age, confined in the Bicêtre, believed himself to be a king, and always spoke with a tone of command and supreme authority. He had received the ordinary treatment at the Hotel-Dieu, where blows and violence only rendered him more furious and dangerous. One day he wrote his wife a most stormy letter, charging her with prolonging his detention, in order that she might enjoy entire liberty. He also threatened her with the whole weight of his vengeance. Before sending the letter, he read it to another convalescent patient, who disapproved of these wild transports of rage, and, in a friendly tone, reproached him with endeavoring to reduce his wife to despair. This wise advice was listened to and received; the letter was not sent, but replaced by another quite moderate, and full of regard. The superintendent, being informed of this docility to friendly remonstrance, saw in it the sign of an approaching favorable change. He hastened to profit by it, went to the maniac's cell, to converse with him, and gradually led him back to the principal subject of his insanity. 'If,' said he to him, 'you are a sovereign, why do you not put an end to your confinement here? why stay here, confounded with maniacs of every description?' He returned, on succeeding days, to converse with him in a tone of benevolence and friendship. He gradually showed him the ridiculous character of his extravagant pretensions, and pointed to another patient who had long believed himself endowed with supreme power, and had become an object

* Pinel, op. cit. p. 303.

of derision. The maniac first wavered; then soon began to mistrust his title of sovereign; and finally recognized his strange alienation. Within fifteen days was this unexpected moral revolution effected; and, after some months' trial, this respectable parent was restored to his family."*

This partial mental alienation proves, that pride is a fundamental quality, connected with a particular organ of the brain.

Seat and external appearance of the organ of Pride, &c.

The proofs I have related, in the history of the discovery of the organ of pride, not appearing to be sufficient to establish the seat and external appearance of this organ, I give some additional facts, that I may not be censured for the gratuitous maintenance of paradoxes. In the following exposition, I am obliged to restrain myself to a very few facts, as I have in respect to the other organs: my object is accomplished, if those I do relate, will enable naturalists themselves to make further observations.

This organ is formed by convolutions of the brain, (xii.) on the median line, directly behind and beneath the summit of the head, and therefore is manifested on the surface of the skull by one elongated protuberance, though there is really one in each hemisphere. (See xii. in the brains, pl. ix. pl. xi. pl. xii. and in the skull, pl. xxx.) It is only when the two hemispheres are a little separated, that the organ appears double on the surface of the skull.

I begin with a case, that strongly resembles that of my beggar. A young man, whose intellect was above mediocrity, had manifested from his earliest infancy, insupportable pride. He constantly maintained, that he was

* Pinel, op. cit. p. 254.

of too good a family to work, or apply himself to any thing. Nothing could free him of this absurdity; he was even put, for eighteen months, in a house of correction at Haina. A physician in Vienna, otherwise an amiable man, carried his pride so far, that whenever called to a consultation, even with practitioners older than himself, or with public professors, he always took the precedence, both in entering and coming out of the apartment. When any document was to be signed, he insisted on putting his signature first. He had connected himself with the director of the Great Hospital, but solely, as he told me many times afterwards, for the purpose of supplanting him. At Heidelburg, I saw a girl of eighteen, of a remarkable character. Every word and gesture in the least familiar, revolted her. She called on God on every occasion, as if he too took especial interest in her affairs. When she spoke, assurance and presumption were depicted in her features; she carried her head high and a little backwards, and all the movements of her head expressed pride. She was incapable of submission, and when in a passion, she was violent and disposed to proceed to all extremities. Although only the daughter of a quill merchant, she spoke her native language with extraordinary purity, and sought the acquaintance only of persons of superior rank. A count in the army, did not advance as he thought he deserved. He frequently conversed with me on many subjects, and spoke very sensibly, but always took the attitude of command. In these four persons, the organ of pride was very large.

It was also very large in a maniac in Baden, near Radstadt, whose madness consisted in believing himself a major. He had a small head, and the organ of pride was the only one much developed, all the other convolutions of the brain being very small. The left hemisphere, and, consequently, the left side of the head, was much larger than the right. The cranial bones were dense, but not too thick, as he died of phthisis at an advanced age. In the hospital of the poor in Friburgh,

we saw an insane man, who was extremely proud, and who sometimes had fits of real frenzy, when he would have committed murder and arson, if he had not been prevented. He declared, in a vehement and pathetic tone, that he is the stock, whence God created and preserves the world; that he has been crowned by Jesus Christ, and is the young man whom the Queen of Heaven has chosen for her spouse. His attitude is that of an arrogant despot. Deeply inspired with feelings of his high importance, he crosses his arms, and, to give an idea of his astonishing power, he strikes his chest and sides with violence. In general, he stands with one foot placed before the other, the body erect and a little inclined backwards. When I requested him to let me touch his head, he replied, with the most astonishing arrogance, "Ich habe keinen *Hopf*, sondern ein *Haupt*," I have no head, i. e. such as common men possess, but a *Haupt*, a head peculiar to kings and gods. He then turned away, holding us to be totally unworthy of approaching him. We saw, however, very distinctly that he had the organ of pride very prominent. Socrates was not mistaken when he said to Antisthenes, "I see your pride through the holes of your garments;" for in his bust, the organ of pride is extraordinarily large. (Pl. lx. ix. fig. 5.)

We have often had an opportunity of examining the heads of leaders of banditti, and in all we have found this organ exceedingly large. In one whom we saw at Marburgh, and who was thought to be the notorious Picard, we found the organs of fighting, murder, theft and firmness, but particularly that of pride, very large. His manner was proud, haughty and disdainful, and he was considered the most dangerous of all the banditti. Long before, I had observed the organs of murder, firmness and pride, full as large, in another chief of banditti, whom I mentioned when treating of the organ of the carnivorous instinct. Driven to extremities by the whippings inflicted upon him, for the purpose of making him denounce his accomplices, he strangled

himself with his chain. We have observed, that rebel-chiefs, the enemies of authority and the sovereign power, the instigators of revolt, &c., are always proud and ambitious men. At Spandau, we saw two rebel-chiefs, father and son, in both of whom the organs of firmness and pride were largely developed. Many others, who were confined for insubordination, were similarly organized. The organ of pride, and the propensity to rule, is astonishingly large in the skull of the sculptor Cerracchi, (pl. lx. ix. fig. 6,) in my collection. He was guillotined at Paris. In Vienna, where I was his family physician, this man expressed himself in the most revolting terms, against every kind of authority, and especially the Pope. He forgot his art, while dreaming about the means of destroying monarchies. These people would overturn every throne, to become despots themselves; so that organization confirms the invariable lesson of history on the end of revolutions,—*Retire, and make room for me.*

The influence of external circumstances is very sensible on this organ, as well as on others. We generally observe, that the inhabitants of mountains are prouder than those of plains; that they have a stronger love of independence, and are more inclined to revolt. In our travels, we have no where found the organ of pride more generally developed in a very high degree, than among the Swiss. Who, too, has not heard of the inflexible pride of the inhabitants of certain Spanish provinces.

Thus far I have spoken of pride, haughtiness, disposition to rule, self-esteem, arrogance, independence: but to what fundamental quality do all these modifications belong? Before deciding this question, the reader must follow me in the discussion of a very doubtful point. Here, again, I shall rely solely upon facts, and when we have arrived at the point where they leave us, and are obliged to resort to reasoning, I will cheerfully yield my own opinions to the sagacity of the reader, and so much the more willingly too, because it can be attended with no unfavorable result to organology.

On the Instinct that directs Animals in the choice of Dwelling-places, (Aufenthaltssinn.)

Having studied the sentiment of pride, as a primitive quality, and its organ in man, I wished to ascertain if my observations would be confirmed by the lower animals. I therefore examined the heads of such of them as we are accustomed to call proud, such as the race-horse, cock and peacock. In none of these did I find a remarkable development of the cerebral parts, corresponding to the organ of pride in man; but I did find a considerable development of these parts in animals, in which I never should have thought of looking for it; that is, in those which voluntarily remain in the higher regions of the air, living on mountains, and other elevated situations; such as the roe-buck, chamois, wild-goat, and some species of eagles and falcons; and, what struck me most was, that the cerebral parts in question were the more developed, and the elongated prominence the most saliant, in proportion to the greater height of the dwelling-places of animals. The reader may imagine my astonishment at such an observation. That a predilection for physical heights, should, in animals, depend on the same organ as that to which the sentiment of pride, a moral disposition, is referrible in man, will appear, I thought, as improbable and inadmissible to every body else, as it did at first to me. I have laid down the rule, to communicate the progress of my observations, as well as the manner in which they have given rise to my opinions. Opinions that are not founded on fact, if not erroneous, are very likely to be so, and a naturalist ought to be less ashamed of committing an error in his interpretations of facts, than of founding his opinions on reasoning alone. I begin with some details concerning the habitations of animals, and perhaps we may, ultimately, discover some analogy between things apparently very different.

We are mistaken, if we attribute the choice of dwelling-places to the mere will of the animals themselves. Nature has assigned to the wild-goat and the crocodile, their respective places, as she has, to the cedar and willow. The fields and the woods, the valleys and the mountains, infected marshes and human habitations, the south and the north, are designed to be peopled by different species of animals. Of the majority of animals most generally known, there are two varieties; one, inhabiting heights, the other, plains; the one, villages, cities, and gardens, the other, forests, and the banks of rivers. We are acquainted with the domestic and the wild sparrow; the nightingale of the gardens, and the nightingale of woody heights; the gold-finch of the gardens, and the gold-finch of the woods; the hare of the fields, and the hare of the mountains. Whence is it that animals, otherwise so similar, choose habitations so different?

This diversity is still greater in the different species. The partridge, the gelinotte (*Tetrao bonasia, L.*) the ganga, (*Tetrao alchata,*) the lagopede, (*Tetrao lagopus,*) the zizel, (*Aretomys citillus Gm.*) the marmot, the water-rat, the mole, the brown rat, and black rat, the mountain-swallow, bank-swallow, barn-swallow, chimney-swallow,—what a difference in the choice of their abode! And, since it is constant, we cannot attribute it to the will acting at random, but to an invariable law of their nature. But how has nature assigned to each animal its dwelling-place? Nothing is easier, it is said, than to answer this question. The chamois climbs the mountains, the duck dives into the water, because necessity calls them there; because there they find their nourishment.

There can be no doubt of the existence of a harmony between the organization of animals, and the external world; otherwise, nature and its creatures would be in a state of eternal contradiction. If marshes were designed to be the abode of the chamois, while its proper nourishment grew on the tops of mountains, the species would soon have disappeared from the earth. For this

reason, every creature is, and must necessarily be, so organized, as to establish its abode where it finds its nourishment. But nourishment is not the only thing that determines the preference of abode. The different varieties of the same species which I have just mentioned, might live on the same food, which, when forced to it by external circumstances, induces them to live in places where they would not otherwise have lived, if they had had their choice. Besides, the chamois and wild-goat climb far above the region where their nourishment is found. The reason is, that an internal impulse impels them to seek the most precipitous heights of the mountains, as it does the young duck, hardly clear of its shell, without any previous knowledge, to run to the water, without heeding the anxious cries of the hen that hatched it. The lark sings in the air, though nothing prevents him from singing on the ground. The royal eagle watches its prey from the clouds, though it might as well, like the owl, hunt it in the lower regions. Every day we see swallows, pigeons, and rooks, rise into the air for pleasure alone, and describe a thousand circles with no intention of seeking nourishment.

External appearance of the organ of Height in brutes.

In all animals that reside in elevated places, we find in the median line, immediately above the organ of the love of offspring, or between its two bumps when double, an elongated prominence, marked xii., on all the plates, precisely similar to that of pride in man. Let us compare pl. lxv., the skulls of the roe-buck and roe, in which this organ is but slightly prominent, with those of the chamois, (fig. 1,) and wild-goats, (fig. 2, pl. lxxiii.) in which it has its highest degree of development. We see that elevation (xii.) in the roe-buck is much less prominent than in the chamois, in which it is less than in the wild-goat, which always seeks the summits of the highest rocks on the highest mountains. Thus, by the

simple inspection of this region of the head, we may determine with certainty which of the species we examine, dwells in the plains, and which, on the mountains; and the higher the eagle, or any other bird, soars into the air, the more prominent is this region of the skull. In the black rat, (*mus rattus*,) this region is flat; in the brown rat, (*mus decumanus*,) which is fond of climbing into trees, it is prominent. The same difference exists between the skull of the common partridge, (*Tetreo cinereus*,) and that of the mountain kind, (*T. montanus;*) between that of the hare of the fields, and that of the hare of the mountains. I do not know whether this cerebral part undergoes similar modifications in aquatic animals. One thing, however, is certain, that we must admit a primitive organ, whose activity assigns to animals their place of abode. It is certain, too, that a considerable development of this organ inspires animals with a predilection for elevated places. If, then, we can render it probable, that the same cerebral part which inspires animals with a desire for heights, when differently modified and influenced by the simultaneous activity of other organs, produces pride in man, and, consequently, that the predilection for physical heights does not differ essentially from that of moral height, except in its object, we may designate, I say, the result of the action of this organ, as the *instinct of height, instinct of elevation;* at least in cases of more than ordinary development. Here, then, the question is naturally presented,—Is there an essential difference between the instinct of physical heights in animals, and the propensity of man to rise to a moral height? Is the difference really so great as to make it ridiculous, to consider both only as gradations of the same sentiment? Is it possible to discover an analogy between the two? Those who maintain the negative, will gain their cause, since they have every reader and hearer in their favor, before they begin. But the opinion of the multitude cannot discourage me; I proceed, therefore, to state the pro and con.

Is there any Analogy between the instinct of Height in animals, and Pride in man.

If the organ of the instinct of height, in brutes, and that of pride, in man, have the same place in the brain and skull, then this fact is in favor of their analogy. I have marked, in truth, in the brain and skull, immediately between and above the organ of love of offspring, a place as yet unknown to me, (iv. pl. ix. and xi.;) and it is above this spot, that I have indicated the organ of pride, (xii.) Notwithstanding all my care, I have never been able to observe any kind of prominence in this place, nor to understand what it is intended for. I have found, however, that, in many skulls, the prominence of pride extends to that of the organ of love of offspring. This happens when the organ of pride is very large. It seems probable, therefore, that the convolution, marked iv. pl. ix. and pl. xi., belongs to the organ of pride. I am still more inclined to believe that this convolution, and that marked xii. constitute a single organ, from the facts, that the convolutions immediately above the organ of propagation, and directly in the median line,* are very large in animals eminently

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* Comparative anatomy presents some very remarkable differences in the seat of the propensity for physical height, as well as in that of the organ of the love of offspring. In man and the ape, for example, the latter organ extends in the posterior lobes to the median line. In birds and most mammifera, this organ is not found on the median line. It occupies the posterior part of the second range of convolutions, counting from the median line. This circumstance, also, produces a variation in the seat of the organ of height. In man, and the ape, there exists a cerebral mass, between the cerebellum or organ of propagation, and the organ of height. In animals that are designed to choose elevated places, the middle convolutions immediately above the cerebellum, are much developed and form an oblong protuberance. In order to make these differences more apparent, I have drawn the brains of a cat and an ape, and the skulls of a cat and a panther. Pl. lxxvii. the convolutions xii. xii. and the elevation xii. are the organ of height. The convolutions ii. ii. and the prominences ii. belong to the organ of the love of offspring.

endowed with the instinct of heights. The brain and skull of the chamois and wild-goat furnish a striking example of this kind. In cases, even where we should suppose that the lower part (iv.) of these convolutions would produce the instinct of physical height, and the upper part (xii.) that of pride, the very near vicinage of these cerebral parts would always lead us to admit an analogy in their functions. It must not be forgotten, that, in man, many organs are more voluminous and complicated than in other animals. The organ of the sense of locality, that of music, and even that of physical love, are more perfect in man, in the same proportion that their functions are so, although the primitive destination remains essentially the same. It would, therefore, be only in conformity with the course of nature, that the organ in question should be so much more voluminous in man, since it is designed to accomplish a much higher end.

In man, even, the action of this organ seems, in some cases, to be confined to the instinct of physical height. I know men, who have a passion for climbing mountains, ascending steeples, &c. Wherever they may go, their first concern is, to scale the neighboring heights; and mountainous countries they prefer to all others. I have found, in all of them that I have examined, a pretty large development of this part of the brain.

And why, too, is this organ more developed on heights, than in plains? I know well enough, that we may be as proud in a valley, as on a mountain, but it is no less true, that pride is much oftener found in elevated situations. If there be not a very strong analogy between the instincts of height and of pride, why are mountaineers more proud and high-spirited, more attached to independence, more inclined to a spirit of domination, than other men? Why do they consider themselves as far above the inhabitants of the valley in moral respects, as, in fact, they are physically higher in their dwelling-places?

Observe children, and even adults, when, in their

sports, they yield to the first sensation and impulse they experience. They stand on tip-toe, get up into chairs, and love to measure their height with that of tall persons, and even to exceed them in this respect. Small, proud women choose a very high head-dress, and wear high-heeled shoes. What tickles the warrior's pride, more than the hair caps and plumed helmets? Generally speaking, whatever elevates and enlarges one's own self-feeling, emanates from the inward sentiment of pride, and by reaction awakens this sentiment in us. It is the custom of all people to place those who command others, in an elevated situation. What would the throne and sovereign power have in common, if man were not here guided by an inward sentiment, of which he is unconscious himself?

It is objected, that children climb up into seats, because they are refused many things, for the simple reason that they are small: and because, too, they have observed the prerogatives enjoyed by large people, or heard them extravagantly praised. I do not believe that this constantly uniform conduct of children is founded on such reflections. I see in it, far more naturally, the first infantile manifestation of pride. Only persuade men, they add, that the lowest place is the most honorable, and every body will prefer it. I allow this; but it will be because man is reasonable enough to prize a place of moral distinction higher, than a merely physical elevation.

All the expressions used to designate pride, or to express our estimation of moral qualities, are taken from physical height. 'He carries his nose up;' 'he is elevated;' 'he bridles up:' 'he struts;' 'he beholds us from the height of his grandeur;' 'he has surmounted every obstacle to his elevation;' 'he has a haughty air, temper, mien and manners, which have made him many enemies,' &c. On the contrary, all expressions used to designate the opposite of pride, and our estimation of moral qualities, are taken from the opposite of physical height. 'The hypocrite crawls;' 'he sinks into the

earth for shame;' 'nothing deserves contempt more than baseness;' 'lower his pride;' 'trample on his credit;' 'God humbles the proud;' 'Rome humbles the pride of Carthage;' 'he stoops to things unworthy of himself;' 'to be prostrated before the majesty of the Supreme Being;' 'the humble stoop;' 'when we wish to be exalted, we should fear, lest we be depressed.'

Piron, wishing to portray the elevated character of Gustavus Vasa, from the influence of blind instinct, mounted a ladder. Thus placed, the thoughts, images, and expressions proper for his picture, crowd upon his mind. Hylas, one day, played a part, ending in these words: 'The great Agamemnon.' To present this idea of grandeur, the actor forcibly drew himself up into a stiff erect position. Engel, in his Mimique, observes, that Hylas should have stood erect without any constraint, in order to express by posture, elevation and nobleness of spirit, and by his features, the serious air of a man of profound reflection; and that, then, his natural language would have given more precisely the idea of the moral grandeur of a sovereign.

Fouquet, celebrated for his profusion, pride, and ambition, placed on his arms and in many parts of his magnificent seat, a squirrel, with this motto – *Quo non ascendam? Whither shall I not rise?*

M. B * * * was always so amply endowed with pride, that, in childhood, he never could get familiar with his companions, nor in adult age, with his equals. In consequence of a wound in the head, in which the organ of pride was involved, and during his long convalescence, the action of this faculty was exalted to such a degree, that he treated his superiors like subordinates, and wrote them letters in a laconic imperative style, ordering them to yield him this or that favor, or distinction. At the same time he was subject to visions, the nature of which, we shall presently see. These facts were communicated to me by his wife. A minuter account of this complaint is contained in the following letter, written by himself, the original of which is in my possession.

"I comply with your wish to be informed of the different circumstances of an accident that happened to me at * * *. I could have made a larger picture of all my visions while sick, had I thought of it at the time, but I tried to forget them, that they might not utterly craze me; though it argues one a little cracked, indeed, to be thinking at all of his visions. But for the facts.

"I had just changed my lodgings. I was dissatisfied with my servant, and, on the day of the accident, I had ordered him to sleep at the * * * chateau. Having retired alone to my chamber, about ten o'clock in the evening, (in December I think it was,) I got ready to lie down, and having undressed, extinguished my fire. In rising from the hearth, I struck the upper and posterior part of my head, against a nail that had been driven in just below the mantel-piece, for the purpose, it seemed, of supporting a cord, by which our predecessors in the place suspended their meat in order to roast it. I fell down senseless into the fire-place, and was found, as I was afterwards told, lying on my left side, with my head and part of my body in the fire-place. My feet, extending in the fall, encountered the table, and overturned it on me. The next morning, when the chamber-maid came in to make my bed, she found me in this situation and senseless. She called for assistance, and I was put in bed, and attended during my sickness, by my friend, M. C * * *. Notwithstanding all their attention, I remained two or three days without regaining my senses, and was given over by the physicians. They thought me dead, and an officer was appointed to command the battalion, that was to pay the funeral honors. At last, on the second and third day, I came to myself, and was told of all that had happened. I wrote to * * *, to inform him that I was not dead. Having recovered my senses, I was attacked with a very severe nervous fever, and was very ill. My mind wandered, and, in the paroxysms of my fever, I exclaimed that I had nails in my head. I imagined that blood came from my ears, though whether it really did or not, I do not know. As

for the visions which I now proceed to relate, I am unable to say, whether they occurred while I was senseless, or after I recovered my senses, and during the paroxysms of the fever.

"It seemed as if I were raised above the clouds, sometimes very high, but ordinarily in the middle regions. I often saw the figure of a man, completely clad in armor of polished iron. In my aerial travels, I saw some very extraordinary things, which I can no longer recollect. I rapidly passed from burning to freezing regions, and sometimes descended upon a kind of terrace, and into deep pits. I walked in prairies, where I saw multitudes of diamonds and very beautiful things, that I wished to collect; and they told me that my hands went through the motions of picking up something.

"Having swallowed, for many weeks, a great many drugs, particularly ether, I entered upon my convalescence, which was, in fact, another disease. Many persons contributed to my restoration: I went into society, and tried to divert my mind by all possible means. At home, I devoted my time to drawing, though my physician objected, on account of my feeble sight. During the three months of my convalescence, I had some very strange, but absurd ideas, which, no doubt, were the sequel of my visions. I wished to fly, and imagined I was making pasteboard wings. However, I never put my absurd idea into execution."

I will add, that during his convalescence, M. B *** always preserved the proud and high-spirited disposition which he previously had. Among other facts also related to me by his wife, I learned that he would have thought it debasing to perform, or suffer his wife to perform, the simplest domestic act. If it were merely to shut a window, or bring a glass of water, his pride revolted at the idea of doing it himself, or suffering his partner to do it; a servant must be called for every thing of this kind.

Now, let the reader decide, whether we are authorized to admit an analogy between physical height.

and moral height or elevation; whether we must admit two organs essentially different, one for the instinct of height, and one for pride, or consider them as belonging to one. But, let me repeat, however this question may be decided, the decision cannot be unfavorable to organology; for, whatever it may be, it is still certain, that the instinct of height, of pride, of love of authority, have their organ in the brain, and that this organ is placed in the region I have indicated. I also leave it to the reader to decide, whether the fundamental quality to which this disposition belongs, should be called the *sense of elevation*, self-esteem, or self-love. Pride, loftiness, hauteur, presumption, thirst for rule, &c. result from the great activity of the same organ. Modesty, want of a good opinion of one's self, humility, meanness, result from its too feeble development.*

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* "It is certain, and must be conceded," says Spurzheim, "that animals which live on mountains, or which are fond of high regions, have one part of the brain more developed than the species of the same genus which live in flat and low countries. This difference is very sensible in roes, hares, cats, rats, &c. Yet it appears to me that this circumstance by no means authorizes the conclusion, that the faculty which leads animals to seek elevated situations, is essentially the same as that which makes man proud and haughty."

"He also supports his opinion by saying, that different faculties which are merely physical in animals, become moral in man, and quotes physical love as an example. Now I think, that all physical faculties common to man and animals, preserve their nature in man, and that the faculty of physical love is, in itself, always the same. It is obvious, however, that this propensity may be accompanied by other sentiments, especially by attachment."

"Gall says, that mountaineers are proud, and particularly attached to their independence and moral liberty. Being attached to mountains does not exclude self-esteem and firmness, which lead to independency. Moreover, I do not think that the inhabitants of Switzerland have more natural pride than the Hungarians. The former, however, struggled for independence, while the latter could not endure the civil liberties which the Emperor Joseph the Second allowed them. The Spaniards are notoriously proud, but show little inclination to be free."

"Gall quotes several examples of proud persons, being particularly fond of climbing upon mountains, and to great elevations. My experience has shown me both proud and humble persons, who felt a peculiar pleasure in going upon towers and other elevated places; but they did so to see the scenery of the surrounding country. This in-

Objection.

"Does the organ of habitation," says Demangeon, "which Spurzheim admits, and Gall does not deny, occupy the same place in the brain of animals that prefer the tops of mountains, of those that live in plains, and those of amphibious and aquatic animals? Gall, who is fond of grafting different fruits on the same stem, finds, in the organ of pride and vanity, the instinct for inhabiting mountains; but I do not see, why the instinct for living in the plain, and that for living in the water, may not equally reside there; else it might be said with more truth than ever, that extremes meet; and it would be no more surprising, than that our physiologist should have identified benevolence and justice in their origin. The ducklings, hatched by a hen, run to the water, as soon as they are hatched, from a primitive instinct, and leave their mother, which is afraid of wetting her feet, to cluck in vain on the edge of the water. Now, do the very opposite instincts of the hen and the duck, solely arise from the difference of their feet, which in the latter are webbed? Sound physiology sanctions no such doctrine; for it teaches, that the bodily parts proper for the execution of an action, are subordinate to a primitive disposition of the life of relation. It is hardly credible, that a single organ, or the same bundle of fibres, should preside over such different, and even opposite tastes and instincts; and I believe that the organ of habitation still contains some dark closet, into which our physiologists have not yet penetrated. It may be, that

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clination then belongs to the organ of locality, as I shall afterwards explain."

"Thus, I separate the instinct which carries animals to physical elevation, from the sentiment which produces self-love and pride; and I consider the first as a modification of the feeling which determines the dwelling-places of animals." ED.

Gall supposes here, too, a negative quality, which causes animals to dwell in low places, and in the water. But such a quality can be no function, unless we admit functions without an organ, which would be contrary to the whole doctrine of the brain. Thus, animals wanting the organ of height can dwell no-where, or must dwell just where chance carries them, which is contrary to observation."

This objection being conceived in the same spirit as that against the carnivorous instinct, I shall reply to it in the same manner. With all his reasonings, Demangeon cannot destroy the fact, that animals that live on heights, have the cerebral part in question, larger than those which live in plains, water, or low places; and this is all I am bound to prove. Does he believe that as many different organs are required, as there are places of habitation? He is at liberty to discover them. In the near-sighted and the far-sighted, the mole and the eagle, the organ of vision is differently modified, but occupies the same place in both. Thus the organ, which, in its largest development, and with certain nervous fibrils, inspires the instinct of height, in another mode of development, and with other nervous fibrils, inspires the instinct for plains or water. In conclusion, I am glad to see Demangeon, as well as other physiologists, beginning to acknowledge that beautiful principle of sound physiology, which I have taken so much trouble to establish, viz. that the executive organs are always governed by the legislative cerebral organs; that the intelligence of the elephant, and the industry of the beaver, do not reside in the trunk, nor in the tail; and, consequently, that the duck and hen do not receive their different instincts from the different structure of their extremities, which are only in harmony with the faculties of their brains.

IX. Vanity, Ambition, Love of Glory, (Eitelkeit, Quhmsucht, Ehrgeitz.)

History of the Discovery.

While engaged in the insane hospitals, in establishing my discovery of the organ of pride, I met with a woman, who imagined herself to be Queen of France. I expected to find the organ of that sentiment large; but, instead of the long, oval prominence, on the superior, posterior, and middle part of the head, I found a very distinct hollow, and, on each side of it, a pretty large, round prominence. At first, this circumstance embarrassed me. I soon perceived, however, that the character of this woman's insanity differed materially from that of men alienated through pride. The latter were serious, calm, impetuous, elevated, arrogant; and they affected a masculine majesty. Even in the fury of their fits, all their motions and expressions bore the impress of the sentiment of domination, which they imagined themselves to exercise over others. In persons insane through vanity, on the other hand, the whole manner was different. There was, then, a restless frivolity, an incessant talkativeness, the most affected forwardness; eagerness to announce high birth, and inexhaustible riches, promises of favor and honor,—in a word, a mixture of affectation and absurdity. From that moment, I corrected my ideas relative to pride and vanity.

The proud man is imbued with a sense of his own superior merit, and, from the summit of his grandeur, treats all other mortals with contempt or indifference. The vain man attaches the utmost importance to the opinions entertained of him by others, and seeks eagerly to obtain their approbation. The proud man expects that people will come to him and find out his merit. The vain man knocks at every door to attract attention, and supplicates for the smallest portion of honor. The

proud man despises those marks of distinction, which, on the vain, confer the most perfect delight. The proud man is disgusted by indiscreet eulogiums. The vain man inhales, with ecstacy, the incense of flattery, however awkwardly offered. The proud man never descends from his grandeur, even in circumstances of the most urgent necessity. The vain man, to gain his ends, will humble himself, even to crawling. Pride, thirst of domination, are the traits of a very few individuals, while the domain of vanity, self-love, extends, at least to a certain degree, to every member of the human family. This may be sufficient to show that pride and vanity are two very different fundamental qualities, and that we must admit a primitive organ for each.

Natural history of Vanity, of Ambition in man.

Vanity, ambition, love of glory, are modifications of the same fundamental quality, which has received different denominations, according to the importance of the objects with which it is concerned. Woman shows her vanity in dress; the statesman derives his honor from his offices; the soldier, his glory from defending his country. This sentiment is as common, as it is beneficial both to the individual and society; for, it is one of the most powerful, laudable, noble, and disinterested motives to action. How many brilliant deeds, instances of generous devotion, and admirable exertion would the history of our race have never known, without the influence of this sentiment! To excite us to labor and to good deeds, even in early childhood, our parents and instructors can employ no more efficient motive than that of honor, ambition, emulation. And to the generous, noble-hearted man, what recompense can be more flattering, than public marks of distinction and merit, celebrity, and a wide and brilliant reputation?

For my part, I like ambition, and a sense of honor,

in my shoe-maker; for it leads him to make me good shoes; I like the vanity of my gardener, for it procures for me the very nicest fruit. I want no advocate, physician, general, or minister, who is not anxious for glory, and is sensible to no other charm than that of gold. I like the naïve vanity of that young girl; and I predict that, some day, she will be ambitious of being an excellent wife and mother. Correct people's notions of the real value of things, and society will always be better for this pretended weakness of man, than for the apathy and indifference of those philosophers, who affect to despise worldly interests.

However the subject may be viewed by satirists and moralists, I thank nature, for having endowed us all with more or less vanity, self-love. Allowing that my vanity disturbs you; that modesty, on my part, and an exclusive deference for your merits, would put you more at your ease; yet be candid, and say, whether, if you should assume such a character, you would be as happy, as contented with your lot, qualities, and talents? It is very rare for equity or justice, to be remarkably well disposed to appreciate good qualities, or extenuate bad ones. But the divine enchantress, vanity, consoles us for our defects, and for the advantages of our equals. Ever ingenious in the work of self-compensation, she discovers in each one of us some merit, some kind of happiness, which we prefer to every thing else. Where is the man, who, under all these relations, would change his character for that of another?

To all classes of men is this quality allotted. Vanity is the same in forests, villages, and cities. The North American Indians think much of their personal appearance; they devote considerable time, and take infinite pains in decorating themselves in their way, and in preparing and giving durability to the colors, with which they paint themselves, and are constantly occupied in retouching them, in order to appear to advantage. There, vanity seeks admiration in fine cattle, and well-cultivated fields; here, it endeavors to attract the jeal-

ous eyes of others, by dress, magnificent equipages, splendid liveries, titles, &c. &c.

It is vanity, too, as Count Segur has said, which makes no nation, however uncivilized, believe itself inferior to the rest of mankind, or contented with claiming even equality. They all have mutual hatred and contempt for one another. Attached to objects which particularly interest them, and respectively considering their condition as the climax of human felicity, they all pretend to preëminence. The most of them, each in its kind, set themselves up for a judge and a model of perfection, arrogate to themselves the highest rank, and distribute the lower ranks and degrees of consideration to others, according as they approach their own habits of acting and thinking. One is vain of the personal character, or of the knowledge of some of its members; another, of its wealth, its industry, its antiquity, its population, and power; while they, who have nothing to boast of, are vain of their ignorance, their simplicity, their mountains, their immense forests, their slavery, their poverty, of the absolute despotism even of their tyrants. The savage cherishes his independence of spirit, which can endure no labor, and recognizes no superior. It was proverbially a form of imprecation, much used by the neighboring people of Siberia, that their enemy might be reduced to lead the life of a Tartar, and be mad enough to rear and pasture cattle. Before the reign of Peter the Great, the Russians believed themselves in possession of every thing that conduced to the glory and ornament of nations, and despised, in proportion, their western neighbors of Europe. In China, the map of the world was a flat square, the greater part of which was covered by provinces of this vast empire, while the despised remainder of the human species was left to occupy some obscure corners towards the extremities. Can we, after this, be indignant at seeing a great and ostentatious people complacently take rank of all other people? Ought we, also, to be astonished, that another great and amiable nation daily sings the praise of its arts, its sci-

ences, its culture, its institutions, its national character, its sky even, and considers them as prerogatives, exclusively appertaining to it alone? I like this vanity, also, because it creates a thousand artificial wants, increases the conveniences of life, embellishes our dwellings, and occupies and supports industrious hands. To this, principally, are we indebted for the flourishing state of the arts and sciences. Collections of works of design, sculpture, painting, and natural history; libraries, gardens, monuments, palaces, and even our temples, would never have existed, or been pitiful things, without the inspiration of vanity, or the love of distinction.

Thus it is that luxury and show, far from being the source of the corruption and ruin of nations, become the moving spring and support of the arts and sciences—the soul of commerce—the agent of national grandeur and opulence.

Finally; it is the same sentiment still—vanity—which, though they suspect it not, opens the hands of the rich, and scatters their bounties on the poor and wretched. It is a fine precept, no doubt, that the left hand should not know what the right hand giveth; but it is requiring too much of human virtue, while we desire the alleviation of human misery. Publish donations, benefactions, and endowments, and you add a powerful motive to charity,—you command it—you wring it from insensibility and avarice. Considering vanity in this light, where is the censor, who would wage war against it? True, indeed, vanity is frequently the accompaniment of mediocrity, the sign of silliness, and bestows on its possessor a purchased title. He thinks himself in credit, because he is admitted, with the crowd, into the houses of the great: he sets an exaggerated value on his smallest qualities; and his self-love excites pity, and often ridicule. But why should we be jealous of the little enjoyments of an inferior being? And what are its slight evils, compared with its beautiful results, when acting in combination with superior qualities and talents?

Vanity, however, is ever inexcusable, when it becomes

the source of envy, jealousy and calumny; when it endeavors to encroach on the merit of another; when it delights in dimming the virtues, and magnifying the defects of those who displease us; when it is ashamed of benefits received; when it sows the seeds of discord, and engenders disquiet and hatred; when it rejects advice, and blinds a man to his own weakness.

It is unnecessary here to prove, that self-love, vanity, and ambition exist in different degrees in different individuals. Observe children; while some are insensible to all humiliations, others are mortified by the slightest reprimand. Look at criminals exposed in the iron collar; and you will see that, while some are overwhelmed with shame, others look on the spectators with every expression of disdain, indifference and impudence,—a conclusive proof, that punishments equal in law, do, nevertheless, vary in intensity, according as they are applied to different individuals; and that the more hardened in crime are, ordinarily, the least punished.

It is the habit to charge the fair sex with more vanity, in trifles, than men. Women know very well, that the toilet heightens the effects of their charms, and, to men's eyes, gives a relief to their other good qualities. Thus this amiable weakness testifies in favor of their desire to render themselves worthy of our approbation. But when I see that swarm of coxcombs and fops, the slaves of the most extravagant fashions; when I see men crowding the public walks, some on horseback, and some in elegant carriages, and coveting the admiring gaze of the idle; when I see the soldier with head erect, strutting along, when seen by women; when I see the pains and manœuvres taken by insignificant men to obtain a title, or a cordon, then the question of the relative degree of vanity in man, and woman, seems to me decided.

From all these considerations, it is to be inferred, that the sentiment of self-love, vanity, ambition, is a fundamental quality, inherent in the human species, and, consequently, founded on a primitive organ of the brain.

Vanity, Love of Approbation in Brutes.

Brutes, too, are fond of praise and approbation. With what fulness of delight does the dog receive our caresses and praises! how sensible is the horse to marks of affection, and how ardent to outstrip his rivals in the race! Every one knows that, in the south of France, they decorate the mules with bouquets when they travel well. The most painful punishment that can be inflicted on them, is to deprive them of their bouquet, and tie them to the back of the carriage. I have a female ape, which, whenever they give her a handkerchief, throws it over her, and takes a wonderful pleasure in seeing it drag behind, like the train of a court robe. One of my bitches is never happier, than when she is carrying my slippers in her mouth. Charmed with this honorable burden, she bridles up, and wriggles her whole body; and the more I exclaim, "fine Stella, fine Stella!" the more animated are her movements, and she passes from one to another, to obtain a tribute of admiration. She might have been likened to a country damsel, in a new gown, on her way to church, wriggling to and fro, with head up, neck stiff, and chest protruded, to draw upon herself the envious looks of her companions. This same bitch, that had always been very lively and fawning, became suddenly afflicted with a sullen sadness, and, in spite of all I could do to enliven her, she continued lying in her corner. After two years of melancholy, she suddenly resumed her former gaiety, and began to caress me with her ordinary liveliness and affection. In the course of the same day, I learned that a squirrel, which I had in the house for two years, had been killed. Never was unquiet, vain and jealous courtier, more deeply wounded, than was this poor brute, by the presence of the strange animal. Birds are just as much delighted with being caressed by their master. They turn from one side to the other, approach him, strike their wings, and express their pleasure by low and gentle tones.

Alienation of Vanity.

In health even, the vain-glorious man deludes himself with the idea of possessing qualities he does not possess: in his eyes, nothing is more important to the world, than himself; in alienation, therefore, the function must be so much the more disordered. In the account of its discovery, I have given two cases, which sufficiently prove, that the sentiment of vanity may be in a state of excitation independently of other qualities. Every insane hospital furnishes examples of this kind. I attended, not long since, a very worthy girl, who had always prized very highly the benevolence of her mistress, a lady of high rank. In her alienation, besides certain fixed ideas relative to amorous intrigues, she imagined herself to be immensely rich, and of a very distinguished rank. She began by giving away her wardrobe; then she went into shops, and purchased goods fit only for princesses.

From all I have said, it follows, that vanity, ambition, love of glory, is a sentiment which must have its primitive organ in the brain.

Seat of the organ of Vanity and External Appearance of this organ.

This organ is formed by the convolutions of the brain marked xi. pl. viii. pl. ix. and is by the side of the organ of height. It is manifested in the cranium by two large prominences, projecting like the segment of a sphere, situated by the side of the oval, elongated prominence of the organ of height. These prominences are on the parietal bones, at about one-third the distance between the parietal and the temporo-parietal suture, reckoning from the former. Hence it is, that the head of vain people is shorter from the forehead to this organ, (pl. xlviii.)

than that of those, in whom the organ is very small. Since the discovery of this organ, the observations I have had an opportunity of making, in insane hospitals, as well as in society at large, have established the form and seat, which I have here given to it. They took us once to see a patient, whom they considered to be mad from pride; but his loquacity, costume, gestures, proved that he was insane from vanity, not pride; and we found that he had the two prominences, which I have mentioned as indicating the organ of vanity, and nothing of that, which indicates the organ of pride. I once examined, with Esquirol, at the Sulpêtriere, the head of a woman, who believed herself Queen of France. This head had precisely the same protuberances that I found at Vienna, on the head of a maniac that also believed herself the Queen of France, and whom I have mentioned in the history of the discovery of the organ of vanity.

I have often looked at apes with astonishment: I have previously spoken of their propensity for dress; and persons, who have had an opportunity of observing a great number, will have remarked, with me, how very sensible they are to every kind of derision and mockery. When they are not of a species decidedly vicious, like the baboons and apes, whose head is flattened, but are like the orang-outangs and monkeys, with a considerably prominent forehead, I advance boldly towards them to caress them. Ordinarily, they receive me with the utmost mildness, and utter sounds of joy, tenderly embracing and kissing me. But if they perceive one mocking them, or unable to conceal a smile, they show their teeth, leap upon him, and bite and slap him with admirable agility. I have hardly been able to explain the conduct of these monkeys. They have the organ of vanity very distinctly shaped, like two segments of a sphere.

Objection.

"Can we conceive of an organ of vanity, which is concerned in the exercise of all the faculties, even in crime and cruelty, in robbers, banditti, and savages, in the most useful, as well as the most frivolous employments? In this age of events of every description, how many men have we seen, boasting of their ingratitude and treachery towards the authors of their fortune, to raise the idea of their importance in the world, where, as Boileau says, "A fool will always find a greater one to admire him." Vanity, like attention, reflection, imagination, and judgment, is an attribute common to many faculties. To assign to it a special organ, we shall have to attribute to it the functions of all the others, or maintain that we may boast of what we can neither have feeling nor thought of; since vanity may arise from every thing, and that, upon ultimate analysis, vanity is only the manifestation of a judgment, false or erroneous in some respects. It is never the failing of a judicious, circumspect mind, though it may be, of one of partial talents; because the combination of many faculties is requisite to awaken circumspection and rectify the judgment, but not for the exercise of particular talents or of mere genius. It needs some ingenuity to discover the points of resemblance, which determined Gall to confound, in the same organ, vanity and the instinct which leads animals to choose elevated places for their habitation; while in the human species, hauteur and meanness, are so often found by the side of each other, in the same head, as Voltaire has very strongly expressed it, in speaking of the great, who were going to the court at Versailles.

Ils s'en vont à la cour essayer des mépris
Qu' ils viennent augalop nous rendre dans Paris.*

* They go to court, to endure the contempt, which they gallop back, to bestow on us in Paris.

"Gall, in his work, flatters many human weaknesses, and especially that of vanity, which he almost credits with the majority of our good deeds; while, in fact, based as it is upon egotism, it corrupts all the sources of good, or exposes it to ridicule. One thing, hard to conceive, in this combination in the same organ, of the physical instinct of height with vanity, is, that the vain are not always found living on the house-top, in high towers and on mountains, and that modest, rational people are found somewhere else besides in plains, at the base of mountains, in caves and ground-floors."

Reply.

The last paragraph of this objection, where Demangeon makes an effort at wit, deserves no answer. He invariably confounds vanity, ambition, love of honor, and glory, with pride, loftiness of spirit, and the sentiment of elevation. Demangeon is probably the first moralist who has taught that ambition, love of glory, of fair fame, of great reputation, are not only barren of noble deeds, but that they even corrupt the sources of good. Demangeon thinks my ideas on the fundamental qualities and faculties of man, are not sufficiently pure to serve for the edifice of a new philosophy. Yet here he draws his arguments from this very philosophy; for the distinction I have established between the fundamental powers and their common attributes, constitutes its most essential part. I do indeed maintain, that the vain man is vain of every thing—of the beauty of his person, his achievements in running, of the strength of his limbs, of his feats in eating; yet does it follow from this, that vanity is an attribute of his beauty, feet, muscles, or stomach? In the same manner, too, the vain man is vain of his skill in stealing, of his courage in killing, of his birth, and of his fortune, without our being obliged to suppose that vanity is a common attribute of birth, fortune, &c., as attention, reflection, judgment, memory,

imagination are common attributes of the intellectual faculties. Though vanity is sometimes the accompaniment of mediocrity, it also is often found in acute, circumspect minds, and accompanies the most benevolent sentiments — which furnish just titles to vanity. Finally: it appears that the passage I cited from the work of C. G. Leroy, in treating of the natural history of pride, puts Demangeon in mind of Voltaire's verses, which prove that a vain and boasting valet-de-chambre preserves the faculty of crawling in the presence of his master.

X. Circumspection, Foresight. (*Behutsamkeit, Vorsicht, Vorsechtigkeit.*)

History of the Discovery.

At Vienna, I was acquainted with a prelate of excellent sense, and considerable intellect. Some persons had an aversion to him, because, through fear of compromising himself, he infused into his discourses interminable reflections, and delivered them with insupportable slowness. In conversation, it was very difficult to bring him to a conclusion. He was continually pausing in the middle of his sentences, and repeating the beginning of them two or three times before proceeding farther. A thousand times he exhausted my patience. Never, in his life, did he happen, by any accident, to give way to the natural flow of his ideas, but would constantly recur to what he had already said, and consult with himself whether he could not amend it in some point. He acted just as he talked. He prepared, with infinite precautions, for the most insignificant undertakings, and every connection was subjected to the most rigorous examination before forming it. This case alone, however, would not have arrested my attention; but this prelate happened to be connected, in public affairs, with a Councillor of the Regency, whose eternal irresolution had procured for him the nickname of *Cacadubio*. At the

examinations of the public schools, these two individuals sat by the side of each other, and my seat was directly behind theirs; so that I had an excellent opportunity of observing their heads. What particularly struck me was, that each head was very broad in the upper, lateral, and hind parts. This extraordinary breadth, coinciding with the peculiar character of these two men, whose qualities and faculties were very different, and who resembled each other, only in their circumspection, and in the conformation of their head, suggested to me the idea, that irresolution, indecision, and circumspection, might be connected with a large development of certain parts of the brain. In a very short time, my reflections on this quality, and the new facts that were presented, converted my presumptions into certainty.

Natural History of Circumspection in Man.

It was necessary that man and brutes should be endowed with a faculty to foresee certain events, to give them a presentiment of certain circumstances, and prompt them to provide against danger. Without such a disposition, they would have lived only for the present, and been incapable of taking any measures for the future. Still, this disposition has been very unequally dispensed to the different individuals of our species. In my own family, several of my brothers and sisters were, from infancy, excessively short-sighted and fickle; while the rest, at an early age, evinced a remarkably cautious and considerate disposition. I have had opportunities of observing the same difference in my schoolfellows, friends, and acquaintances, and I pursued my observations in a great number of families, of the highest and lowest condition. I invariably found two classes of persons; one, obnoxious to the reproach of fickleness, short-sightedness, and want of circumspection; and the other, having the credit of foresight, and of a firm, con-

siderate and circumspect character. People of the former class, are frequently of a gay, careless disposition, and engrossed entirely with the present; they yield themselves unreservedly to the impulses of feeling, adopt rash resolutions, and enter upon hazardous enterprises without deliberation or advice. In domestic life, inconveniences and even misfortunes are the consequence of their want of precaution. Here, they are hurting themselves against a table in the dark, or breaking plates and dishes, owing to the want of a little precaution, in arranging them; there, a child falls into the water while playing in the garden, because they have neglected to surround their ponds with a railing. They lose the money they lend, by omitting to take proper security; riding on a slippery path, quite insensible to the dangers around them, their horse falls, and they lose their lives. A rat or cat overturns the candle they have left burning, and sets their houses on fire. Let a general, thus organized, be active, ardent, and intrepid, and you will see him, like Pyrrhus, heedlessly exposing himself, as if he were the humblest soldier; or, a mere adventurer, engaging in his enterprise without any system, from mere heedlessness and want of reflection.

Persons of the second class are constantly on their guard; they know that it is more difficult to sustain than to acquire reputation, and, consequently, every new undertaking should be prosecuted with as much care as if they were making their first efforts for distinction. They anticipate all possible dangers, all the fortunate and unfortunate events in their enterprises; they ask advice of all, and then even are still undecided. They hold to the adage, that, of a hundred misfortunes that befal us, ninety-nine arise from our own fault. Such persons never break any thing, and they may pass their lives in pruning trees, or in working with edge-tools, without once cutting themselves. If they see a vessel placed near the edge of the table, their nerves shrink; large sums of money they are never guilty of losing. Finally, they are a standing subject of criticism to less

considerate people, who look on their forebodings as extravagant, and their precautions as trifling and absurd.

An excessive endowment of this quality in persons exposed to general observation, and surrounded by perilous circumstances, and tormented by distrust and suspicion, leads them to take a thousand precautions, surround themselves with guards, and carry their circumspection and suspicions so far as to hide away, to sleep in remote, inaccessible chambers, and constantly change them, like Aristippus, the tyrant of Argos, and Louis XI., a tyrant of France.

The general inference to be drawn, from the approximation of these two classes of characters, is, that they must, necessarily, be attributed to a primitive organization.

Circumspection in a state of Disease.

The numerous cases, where man is deranged in every thing relative to circumspection, while he enjoys perfect health and soundness in all his other moral and intellectual powers, prove, that it should be considered a fundamental quality, independent of the others. In Vienna, I attended two fathers of families, in easy circumstances, who, nevertheless, were tormented, night and day, with the apprehension that their wives and children would come to want. All my own, and their friends' assurances, were insufficient to persuade them that their fears were entirely chimerical; yet they were managing their affairs very nearly the same as before they were diseased. After recovery, they were afraid to hear their condition mentioned, through terror of a relapse. Before their malady, they were well known to be of a gloomy disposition, always looking on the dark side of things.

"Melancholy," says Pinel, "may depend upon a natural disposition, strengthened by age, and exasperated by the various circumstances of human life; but we of-

ten see persons, of a gay and lively character, fall into a state of dull moroseness, in consequence of some adversities, seek to be alone, and finally lose their appetite and sleep. They become more and more suspicious, and, in the end, imagine themselves constantly surrounded by snares and plots, contrived with the blackest perfidy. Some of those melancholic patients are so strongly impressed with the idea, that they are persecuted by invisible enemies, that they are in a state of constant anxiety, and, in the night, imagine they hear hollow sounds proceeding from secret machinations, whose victim they constantly think they are destined to be. One of them, who had formerly heard electricity spoken of, and had read some books on the subject, thought that her enemies, who were bent on killing her, could exert over her a deadly influence at great distances, and believed she could see electric currents, which threatened her with the greatest possible dangers. Other women see supernatural beings, whom their feeble imagination converts into reality, by attributing to them the most sinister intentions. A woman, about twenty-five years old, of a strong constitution, and married to a feeble, delicate man, suffered some severe hysterical attacks, and was subject to the most alarming nocturnal visions. She was fully convinced that a beggar, whom she had one day repulsed, and who had threatened to bewitch her, had really executed his terrible purpose. She imagined herself possessed by a demon, who assumed a variety of forms, and who, at one time, would sing like birds; at another, give utterance to most doleful sounds; and again, to piercing cries, that made her quake with terror. She remained several months in bed, unmoved by all the advice we could give her, and by all the consolations of friendship. The curate of the place, a man of enlightened understanding, and of mild and persuasive character, gained some ascendancy over her mind, and succeeded in making her leave her bed, and engage in domestic occupations, in digging her garden, and in other salutary kinds of bodily exercise. All this was fol-

lowed by the happiest effects, and a cure which lasted three years; but at this period, the good curate died, and he was succeeded by a superstitious, narrow-minded ex-monk, who never doubted that she really was possessed of a devil. The consequences of such absurd prejudices, may easily be conjectured."*

"A very distinguished military officer, after fifty years of active service in the cavalry, spent his latter years in a very different condition, in all the enjoyments of an easy, comfortable life, in an agreeable country. The organs of respiration and digestion soon felt the effects of this inactivity, in addition to the enfeeblement produced by age, and the result was a periodical and very abundant secretion of mucus. He became subject to various nervous affections, such as, spasms in his limbs, twitchings in his sleep, frightful dreams, and sometimes fits of heat in his feet and hands. The disorder soon extended to his moral powers, and he began by experiencing the most vivid emotions, from the most trifling causes. If, for example, he heard any disease spoken of, he immediately believed himself attacked with it. Was any one mentioned by his friends as deranged in mind, he imagined himself insane, and retired to his chamber full of melancholy thoughts and disquietudes; every thing became for him a subject of fear and alarm. If he entered into a house, he was afraid the floor would fall, and precipitate him amidst its ruins. He could not pass a bridge without terror, unless impelled by a sense of honor for the purpose of fighting."

"A very rich, middle-aged man," continues Pinel, "became morose and subject to the most pusillanimous fears, so that he could scarcely get a few moments' repose, not lying down till four or five o'clock in the morning. He passed the night in a state of constant fear; imagined he heard a voice speaking in a low tone; carefully shut his door; a moment after, feared that he

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* Pinel, op. cit. p. 115.

had not closed it tight, and continually returned, and continually discovered his mistake. Another idea took possession of his mind; he would rise from his bed to examine his papers; he would separate them one after another; collect them again; believe that he had forgotten something; and be afraid of the very dust on the furniture; he would evince the greatest instability in his thoughts and intentions; would wish and not wish; constantly tormented by suspicion and gloom; he even feared to breathe the external air, and always kept himself within doors." *

"A young person, without any known cause, became gloomy and morose, and suspected all around her of wishing to poison her. The same fear followed her, after she had quit the paternal roof, and was staying with one of her aunts. Her suspicions were so strong, that she refused all kinds of nourishment." †

I have elsewhere spoken of a very rich man, of distinguished talents, and perfectly sound in every other respect, who was plunged into the deepest despair, whenever the conversation turned on any topic connected with his fortune. He saw nothing but misfortunes and disasters; he often shed bitter tears, and thought of destroying himself. At the time of the entrance of Louis XVIII. into Paris, he had an air-gun in his house. Some wretch, he said to himself, may fire on the king; the crime will give rise to domiciliary visits; they will find the gun in my house; and will believe me the author of the deed. He broke the weapon in pieces, and threw it away. Still new perplexities arose. Some years hence, in clearing out the dirt, they will find these broken bits; all the accidents that have taken place, all the crimes that have been committed, by means of air-guns, will be imputed to me. He could rest no longer till he had collected all the pieces he had thrown away. Subsequently, he broke up his pocket-pistols, enveloped

* Pinel, op. cit. p. 293. † Pinel, op. cit. p. 294.

the fragments in some paper, and went and threw them into a remote street. Still more troubles. Might not my address be written on this paper? If they find it, what horrible suspicions will be excited against me!

Seat and external appearance of the organ of Circumspection.

The convolutions marked x., pl. viii., pl. ix., pl. x., constitute the surface or final expansion of this organ, on the two hemispheres of the brain. A large development of these convolutions, raises the superior-posterior outer portion of the parietal bone into a lateral prominence, so that, to the eye, or the touch, the head presents a very broad surface in its superior-posterior lateral region. On the contrary, the head will be very narrow in this region, when the organ is little or moderately developed. This last shape is met with in inconsiderate, precipitate, heedless men, and very generally in beggars and people who voluntarily engage in doubtful enterprises. Compare pl. lxxv., a type of circumspection, with pl. lxxvi., a model of heedlessness.

Let those who are desirous of ascertaining the meaning of this form of the head, look with an observing eye into families, schools, and society. Whenever they meet with these two different forms of organization, and obtain information relative to the circumspection of these persons, they will find my discovery confirmed.

In Vienna, I was the physician of two bankers, who had the reputation of managing their affairs with extreme circumspection; they never, in fact, engaged in a commercial operation, without exposing and considering every possible chance. Both had the region of the head in question very broad. They were also capable of giving excellent counsel, as I have always observed of men endowed with a favorable development of this organ. These two men contributed very much to fix my attention on this organization, and the disposition

resulting from it. Since that, when examining men engaged in extensive business, I have always been favorably impressed with their talents, when I saw this organ well developed. Excepting those urgent cases, where a bold stroke is necessary, the results of their labors will bear the mark of precaution and foresight. Although they may be sometimes slow in the execution, still their plans are based on a broad and permanent foundation; while the opposite organization often accomplishes wonders which soon come to nothing, because the inconsiderate man has not even a presentiment of the caprices of fortune.

I have generally found but a small development of the organ of circumspection in military men, who have no other merit than that of performing coups de main, and who are only excellent partizans. In all military leaders, on the contrary, who acquired the renown of great generals, by actions that were deliberately and cautiously prepared for, and performed with coolness, I have observed the head broad and square at its upper and posterior region.

For the same reason, the serpent is the symbol of the art of medicine. It is possible to be a good operator without remarkable circumspection; but I have never yet met with a really skilful and successful practitioner without a very marked endowment of this quality. On the other hand, patients thus endowed, would frequently weary the physician's patience, if he was not aware of the source of their eternal disquietude. For the most trifling indisposition, how many questions are asked, and questions too always the same! for the slightest accident, how many sinister prognostications are entertained! Does the physician call often? "Bad sign that." Does he not call often? "See how he leaves his poor patient to suffer and die." Does the physician listen to his complaints with a serious air? He draws from it the most fatal horoscope. Does he appear calm, and rather anxious to leave? They charge him with inattention and indifference. Such patients are generally furnished

with too strong a dose of circumspection, unless the absolute want of all occupation fixes their whole attention on the state of their health. I was inquired of, relative to a young woman. As her hair was thin, I could perceive without any previous examination, that her organ of circumspection was very large; I therefore said, that she was circumspect and prudent to an excessive degree. Instantly, her mother began mentioning so many facts corroborative of my opinion, that I thought she would never be done. If the young lady coughed a little—"O, she was dying of a disease of the chest!" If her eyes happened to smart—"she was going to be blind, and one day, instead of being a support to her mother, she should only be a charge. Who would take care of her unfortunate mother in her old age?" If a payment is not made—"how shall we live; we must sell every thing, borrow money, the interest will absorb our income, and we shall finally die in the most miserable condition."

The two patients, who, though in easy circumstances, were afraid of dying of hunger, had both an extremely broad head. The patient who broke up his air-gun and pistols, had not only a very broad head, but on each parietal bone, a prominence projecting out like the segment of a sphere, denoting an extraordinary development of the subjacent cerebral part. Most melancholic patients present this organization, which, in good health, however, is not prejudicial to calmness and contentment of mind. As these too patients, before they were cured, were singularly tormented by a propensity to suicide, and as the third whom I never could cure, is still often on the point of throwing himself out of the window, I will add some remarks on one of the causes of relapses, or periodicity. This examination will be so much the more interesting, inasmuch as it will explain many phenomena, that are as common in health, as in disease, and particularly in mental alienations.

Some additional Considerations on Suicide, and on one of the Causes of its Relapses and its Periodicity.

I have already spoken of suicide, simple and complicated, while treating of innate dispositions. The faithful picture which I there drew from repeated observations, must have given to readers a very different idea of the matter from that too generally entertained. It is pretended, that they are particularly susceptible of melancholy attacks who know not how to connect useful occupations with those that are calculated merely for pleasure: who are solely devoted to sensual gratifications; who, by reason of their own emptiness, cannot live within themselves: and who, after exhausting every kind of enjoyment, die of ennui, for want of fresh aliment. Exposed to this disease too, it is also added, and much more so perhaps than any others, are those young men of a warm and exalted imagination, and a romantic turn of mind, filled with those wild illusions which some philosophers and novelists have been pleased to represent as realities. Carried away with this ideal happiness, they search every where for it: and, after trying in vain to find it, and being disabused of their chimerical fancies, life becomes insupportable.

Undoubtedly, every thing that produces a distaste for life, or reduces a man to extreme despair, may become a cause of suicide. Loss of fortune, or of honor; the prospect of a cruel or ignominious death: the destruction of domestic happiness, jealousy, inability to obtain revenge, which turns one's own wrath against himself; want of strength to support physical or moral ills, accompanied with the belief of annihilation after death, or of a happier future: sometimes even the contagion of other examples of suicide: very often a miserable hereditary constitution, and many other circumstances, may determine an individual to take away his own life. A complete treatise on suicide, therefore, under all its re-

lations, would require a work on purpose, and necessarily lead to numerous physiological, pathological and moral discussions.* I must limit myself to some reflections, upon that kind of suicide which is the sequel of disease of a particular mental alienation, which is itself most often the result of organization,—of a particular disposition.

I have demonstrated that, often in a state of health, a super-irritation, or even an excessive degree of the natural activity of the organ of circumspection, leads to pusillanimity, indecision, ennui, disquiet, discontent, &c. Is it astonishing, then, that in case of general indisposition of super-irritation, or peculiar nervous excitability, the organ of circumspection should perform its part in the fulness of its vigor, fill the patient's mind with sinister forebodings, and represent the earth as the abode of desolation ; finally, that it should engender the propensity to self-destruction?

The state of the disease as I have depicted it, (vol. i.) and which ordinarily precedes this kind of suicide, is alone sufficient to prove that the organ of circumspection is at its very highest degree of excitement, and that it, finally, interferes with the action of the other cerebral parts. I have a list of eleven hundred and eighty individuals, who killed themselves between 1784, and 1798, in the Saxon states, without including Upper and Lower Lusatia. Of this number, five hundred and twenty-six were melancholic, presenting manifest signs of a gloomy, anxious temper. What are we to think of the moral condition of the most of the rest? How often has this treacherous disease been acting silently, and how often have its symptoms been overlooked. They whom I have attended, though apparently in health, were all, timid, suspicious, morose, melancholic, and sometimes, though rarely, a prey to excessive gaiety. Some,

* Since the publication of my large work, this labor has been performed by M. Falret, pupil of M. Esquirol, on *Hypocondria* and *Suicide*. 1822, Paris.

by their petty disquiets, were the annoyance of all around them: they imagined that every body despised them; complained continually that they were neglected, or treated unjustly; while many looked as usual, and disdained to communicate their desperate situation to others. This unquiet temper, extravagant whims, and treacherous silence, ordinarily characterise the most dangerous cases, and, at the same time, reveal to the friends a knowledge of their unfortunate condition. Even after the fatal blow has been given, we are still asked, where they are not familiar with this singular partial alienation, whether the suicide is not rather the result of some immorality, than of a derangement of the mental faculties. Against this latter opinion, they will bring forward the preparations begun long before; the manner in which they eluded the attention or surveillance of their friends; the rational, well-planned measures for accomplishing their purpose; the sudden execution of their project, oftentimes directly after some kind of recreation, in which they seemed to take quite an active part,—and testamentary dispositions, made with a full knowledge of the cause, &c. &c.

The causes ordinarily charged with determining suicide, are only occasional; the storm has been brewing long before. Jealousy, unsuccessful love, loss of property, the clamors of creditors, the tortures of conscience, and all other motives, have, generally speaking, only given the last thrust at an edifice, whose ruin has been long impending. Besides the melancholic cases cited above, where there was a violent impulse to self-destruction, and when the organ of circumspection was very large, I recollect some other examples. The woman, for instance, who tried so often to take away life, and who had strength of religious principle enough to throw away from her, the key of the bed-chamber of her husband and children, and thus deprive herself of the power of hurting them; the young lady, seventeen years old, beautiful, rich, well educated, and on the eve of a brilliant marriage, but always melancholic, and complain-

ing, for a long while before, of an obstinate pain in the middle of her forehead, always appearing to be discontented with her lot, and always protesting that she was very happy, and who finally went up into the fifth story of the house, and precipitated herself upon the pavement, without her design being even suspected: and eight other self-destroyers, whose skulls are in my cabinet, soldiers, young women, artisans, clerks, &c. In all these, there is a large development of the organ of circumspection, producing a very distinct prominence in the above-mentioned region. At this moment I know a very well-informed, well-educated young lady, who, when only four or six years old, thought of destroying herself, whenever her parents shut her up to punish her. She was always expecting to die. To be loved, or to have friends, appeared to her to be a great misfortune, since her approaching death would soon separate her from them. She had the organ of circumspection very large.

This ought to be sufficient to explode the too common idea, that suicide is oftener an act of cowardice, or courage, or heroism, or inconsiderateness, or corrupt manners, or total forgetfulness of duty towards God and man. On the contrary, the result of these observations is, that a disordered and exalted activity of circumspection must be reckoned among the most powerful and frequent causes of melancholy, and particularly of that kind which determines the propensity to suicide.

Undoubtedly, we shall meet with heads of those who have been led to commit suicide by mental alienation, in which there is but a moderate development of the organ of circumspection: but it does not follow, that this may not have been painfully affected. The manner in which other parts of the body are organized, generally enables us to see to what diseases they are predisposed; still, we know, that a certain combination of circumstances may act upon these parts in a sense entirely contrary to the natural disposition. The haughty man, in whom the organ of pride greatly predominates

over all the rest, will, in case of partial alienation, dwell on ideas relative to pride, rather than to any other sentiment. I have mentioned some patients of this kind, who, in the intervals, or when in health, were models of submission and modesty. Have I not also mentioned many cases of persons, who, in a fit of insanity, or drunkenness, or fever, would make verses though previously they had not the least suspicion of possessing such a talent?

I am well aware, that the theory which fixes the origin of melancholy in a disorder of the organ of circumspection, appears to be a gross extravagance to those who, in their study of mental derangements, follow the old routine. Indeed, how could they attribute any partial alienation whatever, to a cerebral part, while they deny that the moral qualities and faculties are the proper functions of these same cerebral parts? And since they do not yet know what partial mental alienation is, how could they have any precise ideas of suicidal melancholy, or propensity to suicide, which is the most imperious, while no derangement is observed in the other qualities and faculties? But since I have demonstrated, that each fundamental quality or faculty is necessarily connected with a particular organ, and that all mental alienations have their immediate seat in the brain; since, in this volume, I have traced the partial alienations of the affective qualities to their respective organs,*—erotic mania to the organ of propagation; a quarrelsome, vicious disposition, to the organ of self-defence; the murdering impulse, to the carnivorous instinct, and so on with the rest,—it may now be easily conceived, that melancholy or distaste for life also, and finally the propensity to suicide, originates in a particular organ.

Considering this as established, I now ask, with what

* At the end of the exposition of the fundamental powers, I shall answer the objections to the doctrine, that partial alienations are owing to derangement of particular cerebral parts.

organ we can reasonably connect the propensity to suicide? It certainly is among the number of the propensities or sentiments. Would you confound these unfortunate people with those who have been made mad by pleasure, or pride, or vanity? Would you refer the propensity to suicide, and those to theft, to quarreling, and to cheating, which have become involuntary and irresistible by alienation, all to the same origin? Would you explain this propensity on the theory of a total derangement of the brain, of a universal commotion of the affective qualities? How then can you conceive of the soundness of many of these same qualities at the same time, which is a matter of daily experience? True, it is with this partial madness, as with every other kind. After existing a long time in the germ, the whole brain begins to suffer; the derangement of all the functions is more and more perceptible, and, finally, the organic lesions that are successively produced, become general. This was proved in the third volume, while treating of the influence of the brain on the form and texture of the cranial bones in disease. After all these reasons, which are founded no less on observation, than on general theory, we are obliged to admit, that the propensity to suicide, when the effect of disease, has its source in the organ of circumspection.

The question now comes up, which of the two sexes must be charged with most readily yielding to the fatal propensity to suicide. Women, in point of intellect, are ordinarily inferior to men; they are endowed with more excitability and sensibility, and they are also, oftener than men, the victims of bad treatment and desertion, a prey to jealousy and wretchedness. Still, the number of suicides is generally much greater among men than women. In 1805, one hundred and sixty-four men, and twenty-four women, committed suicide, in Paris. In 1806, over one hundred and twenty men, and forty women; in 1807, over ninety-eight men, and forty-nine women, making one hundred and thirteen women, and three hundred and eighty-two men, within the space of three

years. In ninety-five cases of suicide in Boston, or near that city, nineteen only, were of women. On the frontiers of Brandenburgh, out of forty-five voluntary deaths, thirty-two were of men, and thirteen of women. Brosson fixes the proportion of men to women, relative to suicide, as five to one. According to the observations of Esquirol and Falret, the propensity to suicide is very nearly three times more frequent in men than in women. But the mere census of cases of suicide, though carefully made, is hardly capable, in any respect, of giving a just idea of the natural history of suicide. It is always very difficult, and frequently impossible, unless the patients have been attended by physicians, to obtain exact information respecting the moral condition of people who put an end to their existence. We wish to know, in how many the suicide was the sequel of a mental malady, of the alienation in question? in how many, it was determined suddenly by momentary despair? and finally, in how many, it would be right to attribute it to a deliberate and culpable immorality?

Circumstances being equal, even in case of organic disposition, women seem to overcome this terrible propensity oftener than men. I know many families, where the propensity to suicide is hereditary, and, almost always, the number of suicidal men exceeds that of women. There is even now a family in Vienna, in which two brothers blew out their brains, many years ago. The three sisters, all married, and mothers of many children, have hitherto resisted, though excessively agitated at their monthly periods, and even during pregnancy. At those same periods, they feel it absolutely necessary that they should be watched till some days after, when they are freed from all temptation. In another family, the grandfather, father, and son have committed suicide, while there is only one sister of the last, that has made a single attempt. Are women less impatient under their troubles—more accustomed to suffer and be resigned? Are they oftener restrained by religious principles, or by regard for their children? Or, are they less

subject to attacks of this malady than men; and if so, from what reason? I doubt whether it can be attributed to feebleness of constitution, to mildness of disposition, or their timidity; for their feebleness of constitution would rather induce them to yield, than to resist; and we can hardly allow so much to their mildness and timidity.

Spring appears to exert a more fatal influence on this propensity, than winter. There are certain constitutions of time, that determine it and render it epidemic, —a fact well known to every physician; but every body does not observe, that this material cause must not be confounded with other external causes of a purely moral description.

We know also, that the propensity to suicide is transmitted from parents to children. In this case, the cause is as material and as little to do with the will, as if it were an accidental disease. The Sieur Ganthier, the owner of various houses, built without the barriers of Paris, to be used as entrepots of goods, left seven children, and a fortune of about two millions to be divided among them. All remained at Paris, or in the neighborhood, and preserved their patrimony; some even increased it by commercial speculations. None of them met with any real misfortunes, but all enjoyed good health, a competency, and general esteem. All, however, were possessed with the rage for suicide, and all seven succumbed to it within the space of thirty or forty years. Some hanged, some drowned themselves, and others blew out their brains. One of the two first had invited sixteen persons to dine with him one Sunday. The company collected, the dinner was served, and the guests were at the table. The master of the house was called, but did not answer,—he was found hanging in the garret. Scarcely an hour before, he had been quietly giving orders to the servants, and chatting with his friends. The last, the owner of a house in the rue de Richelieu, having raised his house two stories, became frightened at the expense, imagined himself ruined, and was anx-

ious to kill himself. Thrice they prevented him, but soon after found him dead, shot by a pistol. The estate, after all the debts were paid, amounted to three hundred thousand francs; and he might have been forty-five years old at the time of his death.

In the family of M. N***, the great-grandfather, the grandfather, and the father committed suicide.

In another family, the grandmother, her sister, and the mother, put an end to their lives. The daughter of the last has been on the point of jumping from the window, and the son hanged himself.

Examples of this fatal hereditary disposition are not rare. As in gout, the grandfather, grandson, and great-grandson may suffer horribly from it, while the son will not experience the slightest attack.

"An astonishing and terrible circumstance of suicidal melancholy," says Falret, page 6, "is, that of all kinds of madness, it is most susceptible of hereditary transmission. I have witnessed a great many times the fatal effects of this predisposition. I saw, at the Salpêtriere, a girl who made three attempts to drown herself; her sister was drowned some years before. I saw a mother, and grand-daughter attacked with the suicidal melancholy, and the grandmother of the latter, is at Charenton, for the same cause. Among the patients of a higher class, I have seen an uncle and niece, a mother and daughter affected with this same disease.

"An individual committed suicide in a house in Paris; his brother, who came to assist at his funeral, cried out, on seeing the body 'What fatality! My father and uncle both destroyed themselves; my brother has imitated their example; and twenty times, during my journey hither, I thought of throwing myself into the Seine.'

"A similar confession was made by a young officer, who came to see his brother, laboring under melancholy with distaste of life.

"Rush, in his work, on 'Diseases of the Mind,' relates a very remarkable case of this kind.

"Captains C. L. and J. L. were twin brothers, and so

great was the similarity in their countenances and appearance, that it was extremely difficult for strangers to know them apart. Even their friends were often deceived by them. Their habits and manners were likewise similar. Many ludicrous stories are told of people mistaking one for the other.

"They both entered the American revolutionary army at the same time. Both held similar commissions, and both served with honor during the war. They were cheerful, sociable, and in every respect gentlemen. They were happy in their families, having amiable wives and children, and they were both independent in their property. Some time after the close of the war, captain J. removed to the state of Vermont, while captain C. remained in Greenfield, in the vicinity of Deerfield, and two hundred miles from his brother. Within the course of three years, they have both been subject to turns of partial derangement, but by no means rising into mania, nor sinking into melancholy. They appeared to be hurried and confused in their manners, but were constantly able to attend to their business. About two years ago, captain J., on his return from the general assembly of Vermont, of which he was a member, was found in his chamber, early in the morning, with his throat cut, by his own hand, from ear to ear, shortly after which he expired. He had been melancholy a few days previous to this fatal catastrophe, and had complained of indisposition the evening previous to the event.

"About ten days ago, captain C., of Greenfield, discovered signs of melancholy, and expressed a fear that he should destroy himself. Early in the morning of June 5th, he got up, and proposed to his wife to take a ride with him. He shaved himself as usual, wiped his razor, and stepped into an adjoining room, as his wife supposed, to put it up. Shortly after she heard a noise, like water or blood running upon the floor. She hurried into the room, but was too late to save him. He had cut his throat with his razor, and soon afterwards expired.

"The mother of these two gentlemen, an aged lady, and their two sisters, the only survivors of their family, have been subject, for several years, to the same complaint."

"Voltaire, in his *Questions Philosophiques*, speaks of a man of serious turn, mature age, and regular demeanor, who killed himself Oct. 7th, 1769; his father and his brother having committed suicide at the same age as his.

"The following case, which I have compiled from documents, used by Professor Lordat in his account of Barther's doctrines, is well calculated to show the influence of hereditary predisposition, in the production of ennui and distaste of life.

The celebrated Barther, whose life was devoted to study, and to the preservation of an ambitious career, was not happy in his old age, though possessing all the elements of happiness. His difficult temper, which was a perfect torment to all who served him, rendered him a burden to himself. He employed all the resources of his mind, in making himself miserable. One day, when he was complaining of the dog's life he led, M. Lordat, his friend and pupil, then a distinguished Professor in the school at Montpelier, reminded him of his reasons for being thankful for his lot. True, he replied; but my disposition destroys it all. If he had a letter to write, there was no rest till it was done; and if the impress of the seal were not perfectly clear and neat, a half day's uneasiness was the result. Will it be believed, that while his *Discours du génie d' Hippocrate*, was printing, he passed a whole night of sleeplessness and vexation, because, after the first sheet was worked off, he discovered, that, in the first *e*, of the word *Genie*, in the frontispiece, the upper horizontal line was broken. What tormented him, however, more than any thing else, was, every thing that seemed calculated to dim the lustre of his glory. He became more and more irritable, jealous, and mistrustful; and concerned himself in all his household affairs. In 1804, he lost his house-keeper, who had served him more than forty years, and was enthu-

siastically attached to him. Her death made him feel extremely desolate. Among his papers, was found one of a sad but touching nature, which he had written for the purpose of alleviating the pain caused by the loss of Mary. One year after her death, this great physician observed, with tears in his eyes, that he had no wish to imitate the courage of his father, who, at ninety years of age, starved himself to death, in consequence of losing his second wife.

History of a whole Family, that committed Suicide.

M. M * * *, dyer, of sound parents, but of a very taciturn humor, was married to a healthy woman, and had five sons and a daughter. The eldest of the sons established himself in business at Montauban, was married, and had children. His family and associates, knowing that he had made many attempts to kill himself, kept watch over him: but, at last, he threw himself from the third story into the barn-yard, and was killed on the spot. He was forty years old; his manners were pleasing, his business prosperous, and melancholy disposition seemed to be the only cause of his tragical end. The second son, who was of a sanguine-bilious temperament, and rather taciturn, was also in business. He married, had some domestic trouble, and was accounted jealous. He lost part of his fortune at play, and strangled himself in his store, at thirty five years of age. The third, of a bilious temperament, threw himself from the window into his garden, but did not injure himself: he said he was trying to fly. The fourth, tried one day to fire a pistol down his throat, but was prevented. The fifth, is of a bilious, melancholic temperament, very quiet and devoted to business. The sister, who is married, and has children, shows no sign which would lead us to suspect the existence of her brother's malady: but one of her cousins has committed suicide. He was of a bilious temperament, and had domestic troubles; his

wife often reproached him with losing money at play. One morning he left home, walked several hours on the banks of the Lot, and finally jumped into the river."

Let me offer one reflection, relative to certain irresistible propensities. I have already shown, several times, that this irresistibility often occurs when the other qualities or faculties are sound, and then it constitutes a real partial mania. If such an irresistible impulse often accompanies the manifestation of a propensity, which threatens and accomplishes the death of the individual, how can we refuse to acknowledge a similar irresistibility in regard to other propensities? Has the cause of morality so little intrinsic worth, that we are obliged to call in the aid of falsehood and error, to render it pleasing to men? When will these hypocritical declaimers cease to confound the deplorable effects of insanity with crime?

On the Causes of the Periodicity of certain Pathological Phenomena, particularly Mental Alienations, and Suicidal Melancholy.

The propensity to suicide, like other alienations, is under the influence of a periodicity, which renders a knowledge of its true conditions, in many cases, singularly doubtful, and the result of treatment always very uncertain. The patient may present signs of a perfect cure; he no longer evinces any of that jealous mistrust, those imaginary fears, or gloomy temper; on the contrary, he appears to participate in the enjoyments of life, and acknowledges the former derangement of his thoughts and feelings; when, suddenly, this treacherous propensity breaks out afresh, with redoubled force, and impels him to his own destruction.

We know, that one of the most powerful and frequent causes of these relapses, is the return of certain seasons.

Another, no less powerful cause, is the period of menstruation; and I now proceed to speak of this great phe-

nomenon in the human constitution. After so many labors on the part of physiologists, who would believe, that it could still become the object of new observations of the highest interest to medicine, morality, and jurisprudence?

Toutes les femmes bien constituées sont, en général, sujettes dans l'espace de vingt-huit jours, à leur évacuation critique, qui dure avec plus ou moins d'abondance, un jour, deux jours, le plus souvent trois à cinq jours, et chez quelques-unes huit jours. Comme les mois sont composés de trente à trente-un jours, et que l'ensemble de la menstruation et des jours libres comprend une période de vingt-huit jours seulement, il s'ensuit que l'époque de chaque menstruation doit avancer, chaque mois, de deux à trois jours, et que les femmes sont réglées, dans une année, treize fois. Beaucoup de femmes vous disent que leurs règles reparaissent toujours à la même date du mois. Si cela arrive quelquefois de suite, la nature reprend bientôt ses droits, et le dérangement sera d'autant plus grand. D'autres femmes, quand elles s'aperçoivent de la différence de ces deux ou trois jours, se plaignent qu'elles sont réglées deux ou trois jours trop tôt. Un petit nombre de femmes savent qu'il faut compter les quatre semaines, y compris les jours de la menstruation. Ainsi les femmes auxquelles les règles durent huit jours, quoique trois semaines après la cessation elles recommencent, ont également les règles dans l'intervalle de vingt-huit jours. Comme je n'ai pas l'intention de faire un traité complet sur la menstruation, je passe les irrégularités qui ont lieu dans les femmes, soit trop faibles, soit trop fortes, ou par suite d'événemens accidentels.

Mais je demande: Les femmes sont-elles réglées indifféremment dans tous les temps, ou sont-elles sous l'influence d'une loi déterminée? Et les hommes sont-ils privilégiés de la nature, et exempts de toute évacuation critique dans l'état habituel de santé; ou sont-ils sous l'influence de la même loi générale? Voici ce que j'ai observé relativement à ces questions.

Exerçant la médecine à Vienne, je me suis bientôt aperçu que pendant un certain laps de temps, presqu'aucune femme n'était réglée, et que dans un autre temps un grand nombre l'étaient à-la-fois. Comme cette circonstance se présenta très souvent, elle dut nécessairement frapper mon attention, et me faire naître l'idée que cette espèce d'évacuation périodique pourrait bien être subordonnée à une loi déterminée. Je tins un journal où je marquai les époques d'un nombre considérable de femmes pendant plusieurs années. Le résultat fut que les femmes sont divisées en deux grandes classes. Chaque grande classe a une période différente pour la menstruation. Les femmes de la même classe sont toutes réglées dans un espace de huit jours. Ces huit jours passés, suit un intervalle de dix à douze jours, où l'on ne rencontre que très peu de femmes réglées. Après ces dix jours commence l'époque assignée à la seconde grande classe, dont tous les individus seront réglés dans l'espace aussi de huit jours. Supposons qu'une femme de cette classe commence à être réglée le premier du mois, elle aura fini le 8, en cas que ses règles lui durent huit jours. Une autre, dont les règles ne durent que trois jours, aura fini le 3 ; ou en cas qu'elle n'ait commencé que le 5 du mois, elle aura également fini le 8, et ainsi des autres, de manière que les femmes, tant qu'elles sont dans un état régulier de santé, ont vingt-un, ou vingt-cinq, ou vingt-six jours d'intervalle. Voici, telles qu'elles ont eu lieu, les époques de deux femmes, dont chacune appartient à une classe différente : 1818, janvier 19, 3 ; février 16, 1, 29 ; mars 14, 28 ; avril 10, 25 ; mai 8, 23 ; juin 5, 30, 19 ; juillet 26, 17 ; août 21, 13 ; septembre 18, 9 ; octobre 16, 8 ; novembre 14, 5 ; décembre 12, 2. On voit que chacune a été réglée treize fois ; et que celle qui avait commencé le 3 janvier, le sera, pour la quatorzième fois, au dernier de décembre.

Il y a toujours des femmes qui, pour causes accidentelles, sont réglées hors de ces deux grandes périodes ; mais après un ou deux mois, elles rentrent ordinairement

dans la classe à laquelle elles appartiennent. Les femmes valétudinaires, les jeunes personnes qui ne sont pas encore tout-à-fait formées, les femmes qui sont sur leur retour sont le plus sujettes à ces irrégularités.

Si les règles ont été suspendues, soit par une maladie, soit par la grossesse, ou par l'allaitement, elles reparaissent à la même époque où la femme aurait été réglée, si elle eût toujours continué de l'être. Quand, chez certaines femmes, surtout chez celles qui sont sur le point de perdre, les règles continuent pendant plusieurs semaines, elles deviennent toujours plus abondantes au temps de l'époque accoutumée.

Pourquoi toutes les femmes sont-elles rangées, pour leurs règles, en deux classes, et pourquoi telle femme appartient-elle à cette classe, et telle autre à l'autre classe? Je n'ai pu acquérir encore à ce sujet le moindre éclaircissement. Les filles et les mères, les sœurs, les brunes et les blondes, les délicates et celles qui sont fortement constituées, sont pêle-mêle du nombre de l'une et de l'autre grande division.

Pendant mes voyages, j'ai continué mon journal; et ce qui m'a le plus frappé, c'est que les deux époques coïncident dans tous les pays, au moins en Europe. A la même époque où les femmes étaient réglées à Vienne, à Berlin, à Hambourg, à Amsterdam, elles l'étaient aussi à Berne, à Copenhague, à Paris, etc. Et ce qui me fait croire que c'est le même cas pour toute la terre, c'est que les espèces de singes qui sont sujettes à cet écoulement périodique, le sont en même temps que les femmes.

Par conséquent, la cause de l'époque de la menstruation n'existe pas dans l'individu; elle est universelle; c'est une loi de la nature qui gouverne tous les êtres subordonnés à ce phénomène. La lune n'y est pour rien: car, dans cette supposition, comment les deux grandes époques pourraient elles avoir lieu? Les époques elles-mêmes coïncident avec toutes les phases de la lune. Souvent, au printemps, toutes les femmes avancent tout d'un coup; à l'automne, souvent elles retardent de même

de quelques jours encore par une influence générale, tandis que chacune accuse pour son compte une cause particulière.

Voyons maintenant jusqu'à quel point les hommes sont sous l'empire de la même loi. Les hommes aussi sont sujets à un dérangement critique, qui coïncide toujours avec l'époque de la menstruation des femmes. Les individus jeunes et robustes ne s'en aperçoivent pas facilement, à moins qu'ils ne s'observant avec une attention particulière. Mais les hommes d'une constitution faible, fatigués par des souffrances habituelles ou par des maladies, ou doués d'unde grande irritabilité, ou ceux qui ont passé l'âge de la vigueur, éprouvent dans l'espace de quatre semaines, pendant un, deux, trois jours, un certain malaise dont ils ne sauraient se rendre compte : ils sont enclins à une espèce de mélancolie, de mécontentement ; ils sont de mauvaise humeur, peu dispos au travail ; les idées naissent et se coordonnent difficilement ; le teint devient terne, l'haleine forte ; quelquefois les urines se troublent, la digestion se fait plus difficilement. Ceux qui sont tourmentés par les hémorrhoïdes, le sont davantage, ou seulement dans cette même époque. Tous ces accidens disparaissent après un, deux, trois jours, sans qu'on y ait contribué en la moindre chose.

Je serais tenté de conclure de ce fait, que l'évacuation menstruelle, chez les femmes, n'a pas seulement pour but de les préparer à la conception, mais aussi de les débarrasser de certaines humeurs hétérogènes, qui s'accumulent pendant l'espace de quatre semaines. Cette idée reçoit un degré de plus de probabilité par l'observation de M. Frédéric Cuvier. Ce savant naturaliste s'est aperçu que les femelles des animaux, au Jardin du Roi, éprouvent tous les mois, pendant quelques jours, une certaine effervescence, une évacuation critique par les parties sexuelles, quoiqu'elles n'entrent pas assez en chaleur pour désirer ou pour admettre le mâle. Il trouve cette découverte confirmée depuis plusieurs années. Je ne sais pas si ces fausses chaleurs des fe-

melles de ces animaux sont aussi en rapport avec la menstruation des femmes et des singes femelles.

Quel avantage résulte-t-il de ces observations pour le médecin, pour le moraliste et pour le jurisconsulte?

L'accouchement a ordinairement lieu pendant les jours où la femme serait réglée pour la dixième fois, s'il n'y avait pas eu d'interruption. Les accoucheurs ont toujours observé que, dans certains temps du mois, les accouchemens sont très fréquens, tandis que dans d'autres temps ils sont rares.

Les fausses-couches ne sont guère à craindre que pendant le terme d'une époque. C'est alors qu'au moindre indice il faut employer tous les moyens pour les prévenir. Il est entendu qu'une violence quelconque peut faire exception à cette règle.

C'est encore à cette même époque que les femmes enceintes souffrent plus qu'à l'ordinaire, des inconvéniens de la grossesse. Les malaises, les maux de tête, les maux de reins, les étouffemens, la pesanteur, les chaleurs, accompagnés de fièvre, toutes sortes de mouvemens nerveux, les fleurs blanches, etc., etc., sont autant d'accidens qui, laissés à la nature seule, disparaissent après le temps accoutumé de la menstruation, pour se renouveler à une époque suivante. Ce sont ces mêmes symptômes qui en imposent si souvent aux médecins et aux jeunes femmes sans expérience. On veut intervenir, par toutes sortes de moyens; par des saignées, par des sangsues; on ordonne de soidisant calmans; et on se flatte d'avoir opéré le soulagement, qui n'est dû qu'à la nature. Outre qu'on se verrait dans la nécessité de répéter, presque à chaque époque, la même traitement, on dérange l'ordre naturel de la grossesse, on prive l'enfant de la partie la plus substantielle de sa nourriture, on affaiblit la mère, on la dispose aux pertes de sang et aux fausses-couches.

Je suis appelé auprès d'une jeune personne ou d'une femme, qui a des attaques de nerfs bien plus fortes que de coutume; qui crache du sang avec une grande agitation, sans qu'antérieurement il se soit manifesté aucune

trace de maladie des poumons. Je sais, d'après mon journal, que c'est l'instant où l'une grandes époques va commencer, et je rassure ma malade ; je lui présage la prochaine éruption de ses règles ; et demain, ou après-demain, ma prédiction se trouve accomplie.

Les règles ont été supprimées par une cause quelconque. Les maux qui en résultent deviennent urgens ; on pallie, tant que les circonstances le permettent, par des calmans, des saignées, les sangsues, des bains, etc. ; mais on n'obtient pas le retour des règles. Le médicin observateur qui s'est familiarisé avec la marche régulière de la nature, sait que tous les moyens tentés à contre-temps restent sans effets ; il sait qu'il ne pourra réussir que quand la nature elle-même réunira ses efforts à ceux du médecin. Il attend l'approche de la grande époque, à laquelle sa malade appartient ; et il obtient, par des moyens très simples et très doux, ce que plutôt, il n'aurait pu obtenir en employant les moyens les plus actifs.

C'est aussi à ces mêmes époques que l'irritabilité, l'excitabilité, la sensibilité des femmes et des hommes, sont infiniment plus actives et plus exaltées que dans l'état de santé. Les uns et les autres, à l'approche de cette évacuation critique, sont susceptibles à l'excès. De-là, des scènes et des querelles domestiques, les souvenirs les plus fâcheux, les caprices les plus inexplicables, etc. Il faut être philosophe, ou connaître à fond la cause matérielle de cette conduite extraordinaire, en prévoir la fin prochaine, pour la supporter avec une charitable patience.

Maintenant, je puis me faire entendre sur cette question importante : Pourquoi certaines causes de maladie, mêmes des causes organiques, persistent-elles souvent, sans produire aucun mal ; et pourquoi, dans d'autres momens, ces mêmes causes déterminent-elles les symptômes les plus alarmans ?

J'ai cité plusieurs exemples qui prouvent que cet accroissment des accidens se fait presque toujours remarquer à l'approche de l'époque critique. J'ai parlé d'un

homme qui, à l'âge de six ans, s'était brisé l'os frontal ; qui depuis ce temps était sujet tous les mois, pendant quelques jours, à des accès de fureur. Un autre homme se sentait aussi tous les mois, pendant quelques jours, un penchant violent à commettre un homicide ; et pour s'empêcher de se livrer à cet acte malheureux, il se sauvait toujours auprès d'un de ses amis, afin de se faire enfermer pendant toute la durée de ce penchant désordonné. On se rappelle ce soldat qui, par suite de violens chagrins, éprouva également tous les mois, pendant quelques jours, une impulsion irrésistible à tuer quelqu'un, et qui, averti par les premiers mouvemens de cette fureur, se fit enchaîner pour se soustraire à ce crime. J'ai déjà aussi parlé d'un certain Hallerau, qui croyait avoir un démon à son service. Pendant sa jeunesse, le démon ne l'avait jamais abandonné ; mais dans un âge plus avancé, le démon n'était plus à ses ordres que pendant quelques jours chaque mois.

De pareilles visions périodiques s'expliquent par le surcroît d'excitabilité, qui imprime à toutes les fonctions un caractère d'exaltation, et qui, après l'époque critique, laisse souvent un affaissement et un abattement d'autant plus sensibles, que l'excitation a été plus énergique et plus durable. C'est ainsi qu'on comprend tous les accidens des soi-disant lunatiques, les vertiges et les étourdissemens, les gonflemens et les injections périodiques des vaisseaux capillaires chez des hommes et des femmes affectés d'hémorrhoïdes ou irrégularité de la menstruation, les accès périodiques de certaines aliénations mentales, les attaques périodiques d'épilepsie et d'apoplexie, etc.

En traitant de l'infanticide, j'ai déjà rappellé l'attention de mes lecteurs sur ce même objet. J'ai fait sentir combien, dans certains cas, ce déplorable état de l'âme peut influer sur les actions d'une femme malheureuse, au moment d'un accouchement douloureux, qui est en même temps celui de cette excessive irritabilité.

Cette même époque devient souvent aussi funeste aux aliénés convalescens, surtout à ceux qui sont obsédés

par le penchant au suicide. A peine ont-ils passé quelques semaines ou quelques mois dans un véritable contentement, et même dans une franche gaîte, que tout leur être se trouve de nouveau bouleversé; les idées et les sentimens se troublent; les angoisses et le désespoir s'emparent de leur âme. C'est là le moment où ils ont le plus besoin d'être surveillés avec une attention très sévère; car ainsi préparés, il ne faut plus qu'un léger ébranlement pour déterminer le coup fatal. De-là, les tentatives si souvent réitérées du suicide, après des guérisons apparentes. Mais le médecin, qui connaît la marche perfide de cette maladie, ne se sépare de son malade que lorsqu'il a la certitude que celui-ci n'a plus eu la moindre atteinte de ces symptômes pendant plusieurs époques de cette singulière excitabilité.

S'il était donné à l'homme de pénétrer dans l'intérieur de ses semblables, on trouverait peut-être confirmée la triste observation que souvent les crimes les plus extravagans ont leur source dans l'influence d'une pareille circonstance. Lorsque des individus, qui ont toujours été sujets à certaines lubies, ou qui depuis long-temps ont été marqués d'une légère teinte de folie, commettent des crimes sans aucun motif d'intérêt; lorsque ces mêmes individus sont étrangement étonnés d'eux-mêmes, et qu'ils sont terrassés immédiatement après leur malheureuse action: je crois alors qu'on peut raisonnablement présumer qu'un semblable dérangement de leur âme y a beaucoup contribué.

Organ of Circumspection.—Continuation.

Natural History of Circumspection in Brutes, and its external appearance in them.

How can those philosophers, who consider the lower animals such limited beings, as to be no better than automata, explain the fact, that these same beings always make use of the most suitable, though varied means of

preserving their existence? The fox, after scenting the wild-boars, tries, before undertaking to seize one of the young, to leap into a tree with a load nearly equal to the weight of one of these creatures, so as to be sure to be able to escape the pursuit of the sow. When he happens to lose his prey in leaping, he measures distances, and practises himself in leaping over them, in order that he may be more successful another time. The bustard, the wild-goose, the linnet, the starling, and the ape, place sentinels. The pigeon, on returning, towards evening, from its excursions, describes large circles in the air, around the dove-cote, for some time before going in, for the purpose of ascertaining whether there is any thing to fear from birds of prey or martins, as well as to give the signal of return to other pigeons, which might have been forgotten in the fields. The butcher-bird, (Lanius collurio, Gru,) transfixes the insects it cannot eat the same day, on the spines of bushes, that it may keep them for the morrow.

Shall we content ourselves with referring to general instinct, to explain these phenomena? But what is this internal impulse, this instinct, if it be not the result of the activity of a particular organ? In man, we attribute precisely analogous acts, to foresight, to reflection. But how are we authorized to admit different causes for the same effects? I have carefully examined the heads of animals, and in all that are remarkable for their circumspection, I have found the cerebral part corresponding to the organ of circumspection in man, and the corresponding part of the skull, well developed. For this reason, the Swabian peasants, in dangerous roads, trust the guidance of their carriage to that one of their horses or oxen which has the broadest forehead.*

What is the organic cause of some species seeking

*The part which we call *forehead* in horses and oxen, is, by no means, the same region of the head that bears this name, in man. The forehead of these animals corresponds to the upper part of the head in our species.

their nourishment by day, while others go out only by night? We answer, that the latter have generally a broader head than the former. The otter and pole-cat have this region very broad. The owls, even those species that see as well by day as by night, such as the *Stryx-bubo*, Stryx otus, and S. brachytos, all have a much broader head than diurnal birds, which also live on animal food, such as the great vulture and many species of eagles and falcons. The pigeon, which is much larger than the small kind of owl, has a narrower head. The goat-sucker, which flies only in the twilight, though smaller than the cuckoo, has a broader head. It is probable, therefore, that a large development of the organ of circumspection determines animals to seek for food by night rather than by day.

Again; what is the organic cause, why animals are inspired with the thought of placing sentinels and setting watchers? We answer, that it is by means of the organ of circumspection, that nature has revealed to them this ingenious precaution. All these animals have the part belonging to circumspection very large, and the corresponding region of the cranium very broad. The heads of the wild-goose and bustard are broader in this region than the swan's; the head of the roe-buck is broader than the common goat's and buck's; and that of the chamois, is still broader than the roe-buck's. The head of the spoon-bill, (*Platalea*,) is remarkably broad in this region; and so circumspect is this bird, that hunters rarely get near enough to it to shoot it. The sparrow of our gardens and houses, which, although very bold, instantly recognizes and avoids all the snares that man can devise, also has a very broad head, and much broader than other larger birds, that are less circumspect.

Nature makes use of a contrivance that has always attracted my admiration. She seems to attach more importance to the preservation of females, than males; and, therefore, the former are endowed with a much higher degree of circumspection than the latter. I have killed

twenty squirrels, without there being a single female among them, though it was not in the season when they are retained by the attentions their young require. In the course of three years, I caught in my garden forty-four cats, among which, there were but five females. During one winter, there were killed, in two counties of Virginia, five hundred bears, among which were found only two females. Lieut. General Count Girardin, captain of the royal hunting establishment, has made a report of the wolves killed in sixty-one departments of the kingdom, from Jan. 1st, 1816, to July 1st, 1817. It apppears, from this report, that there were killed, in that time, eighteen hundred and ninety-four males, and five hundred and twenty-two females.* Among the chamois, the leader is always a female; and there is no doubt that she is distinguished from all the rest, by a higher degree of circumspection.† It is only among species, where it is

* I am well aware, that this difference will be explained by saying, that more males are born than females; but, admitting this to be ascertained as completely as they maintain, though this is impossible, it does not explain the disproportion between the number of males, and that of females, that are destroyed.

As a great many children are devoured by wolves, in several provinces of France, I may be indulged in a few reflections. Have not the game-keepers a particular interest in sparing the young wolves, and particularly the females, so that they may be preserved for the great hunts? Secondly, it is thought that the most efficacious measures have been taken against the multiplication of wolves, by promising rewards. Yet His Excellency, M. Lainé, Minister of the Interior, has just published an order, relative to the destruction of wolves, and offers a reward of eighteen francs for a pregnant wolf; fifteen for one not so; twelve for a male wolf; and six for a young one. The experience of so many years might have demonstrated the inefficacy of such means. In fact, to expect these people to destroy all the wolves, would be to require them to renounce an annual income. Instead of rewarding them, it would be more for the interest of humanity, after giving each game-keeper a limited time for destroying all the wolves in his canton, to require him to make strict amends for each of those animals, found on the territory, allotted to his surveillance. It is just so, too, in countries where the hamsters make great ravages certain years.

† Females accumulate less provision than the males, and burrow deeper—a new proof of their greater circumspection. The result is, that, it being much more difficult, and less profitable to find them, the people who are charged with the destruction of these animals, destroy only the males.

absolutely necessary to oppose strength and courage to an enemy, as among wild bulls and horses, that the guidance of the troop is trusted to the most brave and vigorous male. I shall always recollect with pleasure, a female mongrel produced from a gold-finch and yellow thistle-finch, which was confined with other birds in a large aviary. She once suffered herself to be taken in a little cage I had placed near there, but I never was able to make her enter the cage again. The other birds would enter it and eat there, and suffer themselves to be caught as often as I pleased. I tried to force her in by hunger, by putting food only in this cage, but then she would watch her companions, and when one came out of the cage with a seed in its bill, she would give chase to it, until the seed was dropped; when she would catch it up with the greatest avidity; and thus she fed herself for many months. In order to catch her, I was obliged to open the aviary and make her fly into the room. Her head is much broader than that of any other among all my gold-finches and canaries, or my other mongrels.

From all that has been said concerning the organ of circumspection, it follows, that in health as well as disease, we have proofs that in man, and the lower animals, circumspection, or foresight, must be admitted to be a fundamental, primitive quality, and the organ performing this function is placed in the region of the brain and cranium that I have mentioned.

Conclusion.

All the qualities treated of, thus far, I have demonstrated to be fundamental, each of which is manifested by means of a particular organ, whose seat I have indicated and proved, by a multitude of proofs of every description. The characteristic signs, established previous to this exposition of the organs and their functions, as essential to primitive qualities and faculties, are collected together wholly, or in part, in each instance.

They are neither developed, nor do they decay, all at the same period.

Each of the qualities here treated of, may, in the same individual, be more or less active than the rest.

Each may be alone active, while the rest are paralyzed; and each may be paralyzed, while all the rest remain sound.

The most of these qualities are differently manifested, in the two sexes.

While they all exist together in man, they are dispersed and isolated in the different species of animals.

Each of these fundamental qualities, therefore, becomes a new proof of the propositions I have laid down, as indispensable principles of the physiology of the brain, viz.

All our dispositions are innate.

Their manifestation requires material conditions.

The brain is the organ of all the qualities and faculties of the mind.

The brain is composed of as many organs, as there are qualities and faculties essentially different.

In a state of health, until old age, we can ascertain, upon the surface of the skull and head, the degree of development of an organ, and the degree of activity of its function.

Such are the principles which have been proved by reasoning, and demonstrated by particular facts,—an undeniable characteristic of the truth of a doctrine.

Finally, it is also proved, that all the affective qualities, propensities, and sentiments, have their organs in the brain.

As the total of all these qualities constitutes what is called, *appetitive qualities*, we see why those, who had some idea of the plurality of the organs, could never find one general organ for the general appetitive faculty or quality; so that the charge which I have preferred against the philosophers, on this point, is found to be justified.

In the brutes, each of these qualities is a particular

instinct; it is, therefore, impossible to explain their actions, by instinct, in general, or to find a single general organ of instinct.

According to the degree of energy with which these faculties are manifested, we shall have a result, designated by the various names of *dispositions*, *inclination*, *propensity*, *desire*, *want*, *passion*; that is, each fundamental or primitive quality is susceptible of these different degrees of manifestation. Consequently, we must admit as many dispositions, inclinations, propensities, desires, wants, and passions, as there are fundamental or primitive qualities, and, at the same time, it follows, that we shall seek in vain for any other organs of the inclinations, propensities, desires, wants, and passions, than those which preside over the fundamental qualities. These considerations utterly destroy all the reveries of philosophers and physiologists, concerning the instincts, propensities, and passions. These propositions will be made to appear still more clear and conclusive towards the end of this work, where I shall expound the general features of a philosophy that naturally flows from the physiology of the brain.

The ten fundamental qualities, thus far proved and treated of, in detail, do not belong to man alone, but equally exist in the different species of animals. I have, therefore, treated of man, in respect to those qualities only, which he possesses in common with the lower animals; but, as these qualities are dispersed among the brutes, no one of which possesses them all, man, in this point of view, is necessarily the most perfect animal. Each of these qualities is a fragment of its essence—a part of his moral character. Thus, by degrees, we are let into a knowledge of the composition of man. Those who have followed thus far, must certainly be convinced, that it is only by studying man in each of his parts, that we can arrive at a clear and complete knowledge of his whole moral and intellectual being.

We shall carry this same analysis through the intellectual faculties, and conclude our account of the organs

and their functions, with that of the sentiments and faculties which belong exclusively to man; which place him above every other animal—which give him reason, a presentiment of his Creator, and, in one word, the character of humanity.

Determination of the Fundamental Powers of the Primitive Qualities and Faculties, and of the Seat of their Organs.

The organs of the qualities which I have been describing, have their seat in the inferior-posterior, and superior-posterior, lateral parts of the brain, or head. Since all these qualities are common to animals, it follows that man, if his brain were composed of these organs exclusively, would be, both in respect to his organization, and to his qualities, or faculties, nearly on a level with a great many species of animals. We shall now proceed to examine the qualities and faculties of the cerebral parts, situated in the inferior-anterior and superior-anterior region of the brain. These are the cerebral parts, which give to the head of man its characteristic form, and render it essentially different from that of every other creature. Many of these parts belong exclusively to him, and imprint upon him his own proper character of humanity.

These organs are situated beneath the frontal bone, which I divide into five regions; the inferior-anterior, extending to the middle of the forehead; the superior-anterior, extending from the middle of the forehead to the beginning of the hair; the anterior-superior, extending from the beginning of the hair to the middle of the upper part of the frontal bone; the posterior-superior, extending from the middle of the upper part of the frontal bone to the fronto-parietal suture; the lateral region, extending from the fronto-parietal suture and the anterior margin of the great wings of the sphenoid bone, comprising, in fact, the anterior part of the temples.

Following the natural order, I shall first treat of the organs that are situated in the inferior-anterior region, and partly in the lateral-inferior region. The organs of the most essential qualities and faculties, being always nearest to the median line, they naturally present themselves first, and those that are the farthest from the median line, or occupy the temporal region, will come last.

XI. Memory of Things; Memory of Facts; Sense of Things; Educability; Perfectibility, (*Sachgedæchtniss, Erzichungs-fæhigkeit.*)

History of the Discovery.

After I had discovered an external mark, by means of which I could know whether persons had a talent for learning by heart, I was not long in perceiving that this sign by no means indicated every kind of memory. Among my school-fellows, were some who easily remembered words which they did not understand; while others, who had not this talent, had a peculiarly strong memory of facts and events. Some had a remarkable talent for remembering places, for finding their way, and leading us through strange paths; some would repeat, without a single mistake, a piece of music they had heard but once or twice before; while others excelled in remembering numbers, dates, &c.; but no one possessed all these talents combined in himself. Subsequently, I learned that others had made the same observation before me, and had distinguished three kinds of memory—memory of things, memory of places, and memory of words. The memory of things was called, *memoria realis*, the faculty of remembering things, or facts; the memory of words was called *memoria verbalis*, the faculty of remembering words, and names, and learning long passages by heart, without, perhaps, understanding their meaning; the memory of places was called, *memoria localis*, the faculty of remembering places, re-

tracing paths, and finding one's way. They had observed, too, that each of these memories could exist without the other. Still, however, nearly all philosophers have continued to consider memory as one single, indivisible faculty of the mind.

It is more than thirty years, since I taught this variety of memories, and nearly as long since I proved that memory cannot be considered as a primitive faculty of the mind; that it is only a general attribute of every fundamental faculty; that there must be as many different memories as there are essentially distinct faculties; and, consequently, that there cannot be one single and primitive organ of memory. The memory of music has its organ in the organ of music; the memory of figures, in the organ of calculation; the memory of places, in the organ of the sense of locality, or of the relations of places, and so on; or, to modify these expressions, the memory of music is an attribute of the sense of the relations of tones; the memory of figures is an attribute of the sense of calculation; and the memory of places is an attribute of the sense of the relations of space, &c.

Old, however, as this doctrine is, and disseminated as it has been by mine and Spurzheim's lectures, and the writings of my hearers, there are still philosophers, and even physicians, whose ideas on this subject are wrapped in obscurity. Yet these are the very men, ignorant as they are of the first elements of the physiology of the brain, who presume to arrogate the right of passing final judgment upon it. Villermay, in his *Essai sur les maladies de la memoir*, has adopted all the errors of physiologists. "In men of a melancholic and bilious temperament," says he, "we observe a remarkable memory. In lymphatic, sluggish, dull men, on the contrary, we find very little power of memory. The emperor Claudius, who was one of the most stupid men in the world, had a remarkably short memory. Thus, persons whose temperament is chiefly of the lymphatic nature, are most exposed to diseases of this intellectual

function." "It is very certain," he afterwards says, "that most men who indulge immoderately in the pleasures of love, have very little memory; and I have observed these habits and this result very sensibly in many persons that have a grave or deep voice, or, what is called, bass-tenor. Speaking of the immediate causes of defects of memory, he continues: "Mauget ascertained that there are two immediate causes of this defect; 1st. bad conformation and quality of the brain; 2d. the want of the occipital protuberance at birth. He pretends to have observed an excellent memory in persons whose occipital protuberance was very large." "In our days, a theory, based on similar localities of the brain, has been unable to withstand the strict scrutiny of observation and argument; and now the world is convinced, that it has no other foundations than a certain degree of probability ingeniously set forth. If there were a single point of the cerebral mass serving as the focus of memory, without doubt, this would indicate the positive seat of amnesia, (want of memory:) but we are far from determining in what part of the brain this intellectual function resides. The most probable supposition is, that it shares the lot of the other intellectual faculties, which, being indivisible, cannot be connected with separate regions of this viscus." *

This language shows, that M. Villermay has not the slightest acquaintance with organology. After concluding this account of the organs, I shall develop the main principles of my philosophy, and then correct a host of errors entertained by the scholastic philosophers, relative to memory in particular, and the moral qualities and intellectual faculties, in general. In the mean while, let us pursue our researches by the path of observation.

I am very well aware, that the designation, *memory of things*, does not include the whole sphere of activity

* Memoires de la Société de Médicine de Paris. 1re. partie de l'annee 1817, p. 72.

of this organ. I have observed, that people with a large endowment of the memory of things, have, generally, a ready conception, an extreme facility in learning things; that they have the general desire of knowing, of being instructed in, and pursuing every branch of human knowledge; that they, ordinarily, have a decided vocation for teaching, and, unless prevented by the higher faculties, are easily induced to adopt the opinions of others—to embrace every new doctrine and opinion, and shape them to the fashions, manners, and circumstances around them. These considerations have led me to change the designation, *memory of things*, for that of *sense of things, sense of educability, of perfectibility.*

It would be wrong to confound this general and indefinite perceptibility, with the definite and special perfectibility of each fundamental quality and faculty. There is no moral quality, nor intellectual faculty, that cannot be exercised, and, by means of that exercise, receive an increase of perfection. Every fundamental power is susceptible of development, direction and education. This kind of perfection, however, is always confined to those objects alone, which are within the province of a special organ. On the contrary, the sense of things, of educability, or perfectibility in general, is exercised upon and extends to every thing not comprehended within the sphere of activity of primitive organs or powers. The account of the natural history of this faculty, as it exists in man and brute, will throw light upon this point. Let us begin by inquiring, whether brutes are capable of education; whether they can modify their instincts, and improve their faculties, according as they are favored by accidental circumstances and events.

If Demangeon had read what has just been said, with a little attention, he would never have been tempted to make the following remark.

"Educability, or perfectibility, which Gall has identified with the memory of things, must be measured, as observation shows, not by a swelling at the root of the nose between the frontal sinuses, but by the sum total

of all the faculties. How, in fact, can the child be educated in religion, morality, drawing, calculation, music, painting, philosophy, benevolence, social duties, without the aid of the different faculties which preside over all these objects of instruction. It is a contradiction to admit a special organ of educatibility, and at the same time, to assign to several faculties a special and exclusive part in the general work of education. If the educability of the domestic animals is in proportion to the breadth and prominence of the head between the ears, this shows, not that there is a single organ of educability, but a larger endowment of brain, coinciding with a larger intellectual capacity, without regard to the number of organs. But Gall has more than once inferred the existence of a primitive organ, from phenomena that result from a general increase of cerebral size, without showing at all that this increase of size denotes the unity of the organ."

In many parts of Demangeon's critique, a wish is manifested to attribute to a general increase of cerebral size, what belongs to a favorable development of particular cerebral parts. This disposition would render the plurality of organs superfluous. But how then will he explain, why the brain is more voluminous, sometimes in its superior, sometimes in its posterior, or its anterior, or lateral part, and why this more favorable development of these different cerebral parts, always gives rise to certain definite qualities or faculties? The examination of ten heads would be sufficient to convince him, that the most voluminous brains, the volume of which results from a very large development of its posterior and lateral parts, are by no means attended with a very great intellectual capacity, unless we confound the instinct of propagation, love of offspring, propensity to fight, carnivorous instinct, &c. with the intellectual faculties. All Demangeon's objections awaken the suspicion. that he finds it easier to reason, than to verify observations.

Natural History of the Sense of Things, of the Educability, of the Perfectibility of the lower Animals.

Every day, we see dogs and horses trained to minister to our most varied wants; we have often seen little birds placing the letters of the alphabet, or figures, so as to form names and numbers; and, at this moment, we have before our eyes, the case of a pig, that was trained to catch partridges. Who, too, has not witnessed the dancing bears, and the innumerable tricks of a restless ape? It certainly will not be said, that these properties have been bestowed on animals for the purpose of self-preservation. Whence is it, then, that some philosophers always seem to disdain these facts, and speak of brutes, if not as automata, at least as beings whose intellectual powers are either entire at birth, or rapidly attain the degree of development beyond which they can go no farther. Their instinct, say they, is equally remarkable for its promptness, its correctness, shrewdness, and certainty, and its very limited and unchanging nature.

Undoubtedly, the organization of the brutes, so defective in comparison with that of man, limits, in many respects, their natural perfectibility. But, if we observe the daily life of many species of animals, we shall be obliged to acknowledge, that they enjoy memory, the power of discerning relations, of forming judgments, and even of reflecting on their acts; that, very often, the degree of their understanding depends on circumstances; that it rises, when put in exercise by necessity or instruction, and remains stationary, only from want of exercise. But is man more fortunate in the last particular? When constantly occupied with providing for his immediate necessities, does he not also remain in the narrow circle of ideas connected with them?

To prove this principle, let us follow, with C. G. Leroy, the progress of the understandings of dogs, accord-

ing to the different uses to which they are put. This progress, in some, is owing to the instruction they receive; in others, to their own experience, to the reflections which dogs themselves make on occurrences around them. The house-dog, which is almost always tied up, and whose sole duty is to bark at strangers, remains in a state of stupidity, as almost any other animal would, whose understanding had no more exercise. The shepherd's dog, which is constantly occupied with a duty that requires activity, and, excited by the voice of his master, shows much more intelligence and discernment. All the facts relative to his duty are stored in his memory, and hence results an amount of knowledge that guides and modifies his conduct. If the flock pass near a field of rye, you will see the vigilant guardian collecting them together, keeping them from plants that must not be injured, watching those which would leap over the fence, frightening the rash by startling movements, and punishing the obstinate that are not satisfied with the hint. If we do not admit that reflection, or perfectibility alone, can be the origin of this variety of conduct, governed, too, by discernment, or reference to circumstances, it is absolutely inexplicable. For, if the dog does not learn, from his master, to distinguish grain from ordinary pasturage; if he did not know that this rye must not be eaten; if he were ignorant that the vivacity of his movements must be proportioned to the disposition of the sheep, and did not recognize this disposition, his conduct would have no motive, and there would be no sufficient reason for acting.

But we must follow this animal to the chase, to see the development and perfectibility of his intellectual powers. The chase is natural to the dog, which is a carnivorous animal; so that man, in applying him to this exercise, only modifies and turns to use, a taste and disposition, which nature has given it for its own self-preservation. Hence, in the actions of the dog, we meet with a mixture of acquired docility and natural sentiment,

and that constituent principle is most conspicuous, which circumstances have most excited to activity. Nature is more free and unrestrained in the hound, than in any other variety. The habit of subjection renders him attentive, to a certain degree, to the voice and motions of those about him; but, as he is not always under their hands, it is necessary that his mind should act of itself, and that his personal experience should often rectify the judgment of the hunters. The pains that the latter are obliged to take, in order that they may give chase to the animal first roused, break in the dogs, and chastise them when they lose the scent, gradually accustoms them to distinguish the scent of the stag before them, from that of all others. But the stag, hard pushed by the chase, endeavors to associate other individuals of his species with him in the flight; and then, the dog stands in need of the nicest discernment. In such cases, nothing can be expected of the young dogs; the most consummate experience only is capable of prompt and sure decision in this embarrassment. None but the old dogs, are what is called *hardis dans le change*, that is, they readily distinguish the scent of their deer, from that of all other animals that accompany him. The hounds, whose experience is just beginning, present to the attentive hunter, a picture of uncertainty, research, and activity, well worthy of observation. They pause and show every sign of hesitation; apply their nose to the ground with the utmost care and attention, or jump up to the branches with which the contact of the animal's body has left a stronger indication of his passage, and are only decided by the hunter's voice, who encourage them by his confidence in the most sure and practised dogs. If, in a moment of excitement, they get beyond the scent, and lose it, the leaders of the pack take the only means to recover it, which man himself would employ. They turn back, examine all around their course, to find, within the circuit they have traversed, the track which has escaped them. The skill of the hunter could do no more; and

here, the experienced dog has arrived at the limit of his knowledge, in taking every means that many conduce to success.

The setter has the nearest and most constant relations with man. He always hunts under his eyes, and almost under his hand. His master allows him to enjoy it, for it is a pleasure to him, even to take the game in his teeth. He brings him this game, and is caressed if he does well, and chided, or punished, if he does ill. He manifests either pain or pleasure, and an interchange of services, gratitude, and attachment, is established between him and his master.

While yet young, the setter is, nevertheless, docile; he listens only to his master's voice, and follows his orders with precision. But being guided by keener and surer senses than man, he is not always inclined, when age has given him experience, to manifest the same docility, though generally very obedient. If, for example, the game is wounded, and the old and experienced dog feels sure of having found the train, he will not suffer himself to be misled by his master, whose calls and threats are used in vain. He knows he serves by disobeying him, and the caresses that follow his success, soon teach him, in fact, that it is sometimes necessary to disobey.

A fox that escapes from a trap, with the loss of a foot, will avoid every kind of trap, for years together. When these crippled foxes are met with, whose infirmity announces experience, the intelligent hunter renounces all idea of taking them by ordinary means, and has recourse to others with which they are unacquainted. A young dog that has once got into a ditch covered with water-lentils, which he mistook for moss, will never, as long as he lives, be again deceived by it. In the Landes of Bordeaux, near Sales, the sheep-folds and parks are large buildings without floors or foundation. In the latter part of the eighteenth century, the wolves had never yet attacked the parks, except through the gates and holes in the walls. They never had tried to burrow

down and get under the walls. For some years, however, they have been obliged to lay foundations in masonry, for the wolves had learned to make holes under the wooden walls, large enough to carry away the animals bodily.

The fox, the hare, and the marten, that have been often chased, are far more on their guard, than others of the same species that have never been exposed to danger. The gardens in Paris are frequented by several species of birds, such as tom-tits, wrens, red-breasts, nightingales, chaffinches, green-finches, linnets, blackbirds, &c., which are very rarely met with in places where they are afraid of being annoyed. The experience of perfect security is all that has inspired them with this confidence. Even many species of accipitrine birds, whose natures are the farthest possible from all restraint, acquire an astonishing docility in a very little time. We see them, high in the air, regarding the voice of the hunter, and regulating their movements by his directions, when repeated experience has taught them that docility most effectually leads them to their prey.

If the lower animals obeyed the laws of a blind necessity, if they were deprived of all perfectibility, their actions would present a perfect uniformity; they would always labor in the same manner, would always begin as they ever had begun, and finish in the same way. But bees adapt the form of their combs to that of the space in which they work; and they can be made to build the royal cells, or destroy those already built. If we make a hole in a spider's web, she repairs the rent. I have often made several holes in a hang-bird's nest, suspended to a light branch, but it never failed to repair every breach, which it always did before going on with the construction of its nest. Two swallows were in the habit, every year, of building their nest in my friend Streicher's house, in Vienna. During their absence, a bell was hung, the wire of which passed directly through the place where their nest was. On their return in the spring, they rebuilt their nest in the old place; but they

took care to leave an opening for the wire, contrived in such a way, that it would play freely without touching the eggs or young. It is impossible to observe the nests of birds with tolerable care, without perceiving that those of the young are generally, poorly built and badly situated; frequently, even, the young females set any where without having made any provision whatever. The defects in these first labors are remedied afterwards, when the animals have been better taught by the inconveniences they have experienced.

It is clear, therefore, that brutes are instructed by experience: that their actions are modified, in consequence of the different trials to which they have been subjected. We see that, relatively to their wants, to surrounding circumstances, to the dangers to be avoided, they act as the most intelligent beings would act. Many naturalists have been so struck by the voluntary actions of certain animals, that they have thought proper to deny all innate dispositions, and have wrongly concluded that every thing they do, is the result of their experience and of the instruction of their fellows. The memory of things, the educability, or perfectibility of animals, can no longer, therefore, be called in doubt.

It is equally certain, that animals are capable of a degree of perfectibility which varies with the species, the individual, and the age. The dog is more remarkable for docility, than the wolf or cat; the horse is more docile than the ox; the lion, more than the tiger; and the otter, seal, and fox receive instruction of which the badger and hare are incapable. Some monkeys yield, with admirable pliancy, to the caprices of their masters; while others repel the least attempt at education with savage indocility. Who has not admired the almost human docility of the elephant? The common gray parrot learns with the utmost facility; while others, weary the patience of their instructors.

The different species of accipitrine birds are endowed with far less docility. The vultures are stupid, compared with the falcons; and among the latter, the com-

mon falcon, (*falco communis*,) the Iceland falcon, (*falco islandicus*,) the merlin, (*f. œsalon*,) the kestril, (*f. tinnunculus, gyrfalco, f. lunarius*,) the common goshawk, (*f. palumbarius*,) the sparrowhawk, (*f. nisus*,) readily suffer themselves to be trained to hunt. The *falco lithofalco*, and the *f. sacer*, on the contrary, like many other species, are completely indocile. The Tartars of Siberia know so well how to train the common eagle, (*falco fulvus*,) that it catches hares, foxes, wolves, and antelopes.

Individuals of the same species, and even variety of animals, present striking differences in respect to training. The intelligent water-spaniel, the vigilant shepherd's dog, the docile hound, are far more readily taught than the fine English mastiff and the graceful harrier. One water-spaniel excels another, in docility; one hound is preferable to another hound; one horse, to another horse. One gnat-snapper makes more rapid progress in instruction, than others of the same species; and so of the starling, thistle-finch, &c.

Finally, a well-marked difference, in regard to educability, results from difference of age. What the animal that has been instructed from its birth, easily learns, is difficult to the adult, and impossible to the old animal.

The above is a very brief view of the perfectibility of animals; and now my readers have a right to ask, whether the cerebral organization of brutes will generally explain their educability; and whether it differs with the different degrees of the educability of species, individuals and ages? When these questions shall be answered in the affirmative, it will be an extremely probable conclusion, that the perfectibility of animals must be considered as the function of a primitive organ of the brain.

Examination of the cerebral Organization of Animals, compared with their Perfectibility; Seat and external Appearance of the Organ of the Memory of Things, or of Educability —Perfectibility.

When we pause before a series of skulls of men and brutes, or compare those drawn from nature in my plates, our attention will be arrested by an essential difference between them. The human skull is broad in its inferior-anterior part, directly over the orbits; while those of brutes, on the contrary, are far more contracted and narrow, in that region, and generally rise so little, that they retreat immediately above the orbits, which are never overshadowed by the brain. Their brain, therefore, in its inferior-anterior region, is much less complex and perfect than man's, and their organs in this place are much fewer and smaller; and the consequence is, that the faculties connected with them are equally few and feeble. This fact has been observed by a great many naturalists. Camper has made it the foundation of his theory of the facial line, which I have elsewhere shown to be insufficient for determining the degree of intelligence. Lavater was so convinced of the significance of this difference in the form of the lower part of the forehead, that he formed a scale of the gradation of the forehead, from the frog to the Apollo Belvidere. Lavater thought only of his ideal scale, instead of presenting the series of steps which really exists in the gradual increase of perfection. There is a want of precision, too, in this theory; for the inferior-anterior region of the brain being composed of several organs, beginning on the median line, and extending to the temples, must not be considered without some qualification, in order to measure the degree of perfectibility. Those convolutions alone that are placed towards the median line, and separated only by the interposition of the inferior-

anterior part of the falciform process, are devoted to this function; so that it is only the corresponding part of the cranium that requires our attention, in the following observations.

Animals least capable of instruction, have the smallest cerebral parts above mentioned; hence the complete flattening of their head. Fishes, frogs, snakes, crocodiles come into this class. To make the observation easier, I will not dwell on a great many intermediate animals. Let us compare successively those of a pretty high order, viz. the heads of the badger, otter, beaver, seal, wolf, grey-hound, hound, and water-spaniel. In pl. lxvi. we see that the head of the badger, fig. 1, is most depressed, directly behind the frontal sinuses, where the brain begins. The highest line does not even indicate the position of the brain; it only marks the bony crest found on old badgers' heads, as in many other carnivorous animals. The second line indicates the direction of the brain. It goes on, descending from the frontal sinuses, and forms a segment of a circle with the bones of the face. In the otter, fig. 2, it is perceptibly more elevated. In the fox, fig. 3, it is still more so. In the head of a large greyhound, fig. 4, the elevation of the anterior part of the brain begins to form a forehead, of which there exists no trace in the badger, otter, or fox. The forehead is much finer and higher in the water-spaniel, fig. 5, which is remarkably teachable.

The same results are obtained by comparing the heads of the otter and beaver, with that of the seal, which is extremely docile; the heads of the wolf, hyena, jackal, and glutton, with those of all the varieties of the dog, particularly the water-spaniel, pointer, and our little house-dogs. The head of the stupid greyhound approaches very nearly the wolf's. I have the head of a wolf that was raised with the rest of the litter, but is remarkable for his mildness and docility. The region directly behind the frontal sinuses is much higher than in ordinary wolves.

I must refer my readers once more to pl. xxxiii., where they will see that the anterior convolutions are more developed and elevated in the brain of the lion, fig. 4, than in the tiger's, in which, on the contrary, the convolutions of the murdering instinct are larger and more prominent than in the lion's. Submitting the different species of apes to the same comparison, we see that the heads of the fierce papions and mandrins, which are so indocile, are conformed, as it respects the organ of educability, very nearly like those of the tiger and panther. Fig. 1. pl. lxviii. is the head of the redoubtable pongo, and fig. 2, the head of the fierce and lascivious papion of Buffon, (*Simia sphinx*, *Lin.*) Of a very different character, in respect to educability, are the apes represented in pl. lxxix. The sajou, fig. 1, (*Simia fatuellus*,) is very different from the say, fig. 2. (*Simia capucina*,) and the latter, though possessing some very amiable qualities, cannot be compared with the chimpansé, fig. 3, (S. troglodytes.) They live in troops, build houses with the branches of trees, arm themselves with stones and sticks, and drive men and elephants from their abodes; they pursue negresses, and carry them away into the woods. In the domestic state, they are so docile, that they are taught to walk, sit, and eat like men.* Finally, the ape that most resembles man, in the shape of his head and brain, is the orang-outang, fig. 4, (s. satyrus;) he easily becomes tamed and attached, and imitates a great many of our actions. The brain of the orang-outang is represented in pl. xxxiv. fig. 2, and 3; fig. 1 represents the brain of the rhesus, (*patas*,) which is much inferior.

The same truth is confirmed, whatever order or family we choose to submit to a similar comparison, always having regard to the different degrees of educability of the different animals subjected to the examination.

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* Cuvier, *Regne animal.* T. 1. p. 104.

It remains to be examined, why young animals learn with more facility than adults and very old ones. They talk of the traces which impressions more easily leave on soft brains, than on those that are already in a consolidated state; but as we are totally ignorant how instruction is effected, this theory must be ranked among hypotheses. This, however, is certain, that in young animals, the inferior-anterior middle convolutions of the brain, are, proportionally, much more developed than they are at an advanced age. It is at the moment of birth, or soon after, that a knowledge of the external world is required, so far as it is necessary for its self-preservation. The author of nature has thus manifested his wisdom, in making the wants simultaneous with the development or activity of the cerebral parts destined to provide for them. The colt, the young ass, the calf, the kid, the young lion, the young wolf, the kitten, the young apes, and even young birds have the anterior-inferior region of the head more prominent than adult individuals of the same species. Thus, is there a perfect harmony between the organization and the function.

On the Domestication of the Lower Animals, and their Disposition to be tamed.

Why have certain animals been reduced to the domestic state? how have the wild bull and horse been tamed? Man, by the superiority of his intelligence, it is said, has tamed and enslaved the creatures that seemed most useful to him. Thus it is that man, proud of his prerogative, and arrogating extensive influence over every thing around him, forgets that it is to a higher order of being that he is indebted for the blessings of nature. If the power of human intelligence has tamed the bull, the stallion, and the boar, why are we, whose knowledge of animals is far more accurate than our ancestors, incapable of domesticating the wild fox, cha-

mois, pigeon and duck? It has been tried a thousand times to rear young wild pigeons with tame ones. The former have been taken from among the gregarious species, and been made to hatch and raise broods, generation after generation, in the hope that they would finally be converted into tame pigeons. As long as they were shut up, they were quite familiar with their companions, but the moment the dove-cote is opened, they soon fly off, never to return. The art of taming wild partridges, ducks and pheasants, has long been known. They buy the eggs, and have them hatched by hens and common ducks; the brooder is shut up, and the young are thus accustomed to their mothers, but hardly have their wings made their appearance, when they fly away. To keep them in the yard, they must be tamed about the house, gradually accustomed to other poultry, and, at times, shut up together with them. But this is not sufficient; the two stoutest feathers must be plucked very early from each wing, and the ends of the others cut off. While the young partridges and ducks are sensible of their feeble powers of flying, they fly short distances by day only, and return in the evening. But although they have been so tamed, as to return at the sound of the drum or whistle of him that attends them, yet if they neglect to cut their wings after moulting, they get at large, and prefer living at their own expense. It is just so with wild-boars, wolves, roe-bucks, which, however tame they may be, try to get at liberty, the moment their natural propensities are developed.

The most ferocious species may be subdued by hunger and caresses, and we may succeed in familiarizing them to us by habit; but no sooner does the animal find himself free from the barriers to which he has been accustomed, than nature resumes her rights and triumphs. The Tipoo-saib tiger, after being trained to the chase, will readily relinquish himself to the impulse of his natural instinct. So that, although it may be possible to make some individuals *domestic*, they are not

thereby necessarily *domesticated*. All these facts prove that it is not in consequence of his superior intelligence, man claims the empire over certain animals; and it must be acknowledged, that if the bull, the horse, the pig, the sheep, &c. are associated with the wants and labors of man, we must seek for its cause somewhere else, than in his will and designs.

It is very certain, that animals which live in the enjoyment of full and perfect liberty, present great differences in the facility with which they are tamed and domesticated. In Egypt, dogs are considered unclean, and no one takes the slightest care of them; still, they roam about in troops, through the cities and even villages. Other species, too, without being entitled to be called domestic, always seek the neighborhood of man; they establish themselves in his gardens, and even in his houses, while others fly far away from his abodes. Several species of swallows, the sparrow, jackdaw, merlin, white stork, &c., establish themselves in our towers, steeples, houses and gardens; while other swallows, the wood-sparrow, crow, common falcons, and black stork, prefer to be at a distance from man, and build their nests in the woods —an additional proof, that here, as every where, whatever man may do with the faculties of animals, nature always begins the work. The means by which she exerts this varied influence over animals, is the diversity in the development of the cerebral parts, in virtue of which they are more or less easy to be educated and improved.

If we compare the head of the wild-boar with that of the hog, the chamois' with the goat's, the head of the black stork with that of the white stork; if we compare the hyena, jackal, and wolf with the dog, the wild rabbit with the tame, the wild cat with the domestic, wild pigeons with domestic ones, the garden-sparrow with the wood-sparrow, the yellow thistle-finch with the gold-finch, the wild goose and duck with tame ones,—we shall always find the region of the brain and cranium above mentioned, more protuberant and

elevated in the domestic animal, and more flattened and depressed in the wild. See pl. lvii. fig. 6. wild duck; fig. 7, tame duck; fig. 8, wild pigeon; ring-dove; fig. 9, domestic pigeon. The angora cat, which is naturally tamer and gentler than the common cat, has this region perceptibly more prominent.

At Gottingen, Blumenbach showed us a gull belonging to a large species. which, we concluded, from its finely elevated forehead, must be easily tamed. He told us that the very first day, when one of its wings was broken by a musket-shot, it ran through the house like a perfectly domestic animal. Afterwards, we learned, that in some northern regions. the gull is, in fact, domesticated. Thus, the favorable development of the inferior-anterior middle portion of the brain, provided it is found in the whole species, always warrants us to infer, either that nature has designed it to be domesticated, or at least that some individuals are easily tamed and instructed. See the brain of the elephant, pl. xxxv. We may also confidently predict, that all the pains in the world, to domesticate animals, in which these cerebral parts are small, will be fruitless.

If this part is found remarkably developed in an individual belonging to a species naturally wild, it will always be distinguished from the rest, by its gentle and docile character. I have already cited the head of a wolf, remarkable for its mildness and docility. I have also spoken elsewhere of the ferocious animals in the Royal Garden, whose good or bad dispositions, in this respect, we have constantly divined. There is, at this moment, in the garden, a hunting tiger, which has been trained to hunt, like a dog. His forehead is more arched than the other tigers', and his temple less broad. One of my auditors brought in the heads of two woodcocks, one of which soon became extremely tame, after being wounded in the wing. The lady-owner of the estate, where these animals had lived, having previously often taken care of other woodcocks, wounded in this way, was struck with this peculiarity. All my auditors

instantly recognized the head of the individual that had been tamed by the benevolent lady. In this way I have long been in the habit of choosing from among a great number of thistle-finches, starlings, and bull-finches, those which are remarkable for their docility, and the ease with which they are tamed.

In domestic species, those individuals that have the finest forehead, excel the rest in intelligence. It is impossible to be deceived in the choice of oxen, horses and dogs, when we are ever so little familiar with the seat and external appearance of this organ, in the different varieties of these animals. Pl. lxiv. fig. 1, represents the head of a vicious, indocile horse. The forehead begins to retreat, about an inch and a half above the eyes. Fig. 2, is the head of a gentle, docile horse, in which, at the same distance from the eyes, the forehead either continues in a perpendicular direction, or swells out a little. The same difference exists in the two dogs drawn in pl. lxx. Fig. 3 represents the head of a dog, vicious and less docile than that represented by fig. 4, which combines great docility with gentleness of disposition.*

The result of all these observations made on the most different classes of animals, is, that the educability or perfectibility of brutes must be considered a peculiar fundamental faculty, and that its organ is situated in the inferior-anterior middle portion of the brain and head.

Memory of Things, Educability, Perfectibility of the Human Species.

The doctrine of the cerebral functions has been charged with being in opposition to the perfectibility of man, and to the effects of education. If by education is

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* When I come to treat of the organ of benevolence, I shall show how to distinguish the organ of docility from that of benevolence.

to be understood, the creation of primitive qualities or faculties, the germ of which does not exist in the organization, then, I deny the possibility of all education whatever. But if by education it is meant, that the innate qualities and faculties can be cultivated, neglected, repressed, or directed, I am among the strongest believers in education, and in many passages of this work I have shown how deeply I am impressed with its importance. All that I have been saying relative to the perfectibility of animals, will be a fresh proof to the reader, that I must, of necessity, entertain the highest ideas of the perfectibility of man, and, consequently, of the great influence of good or bad education. In the wildest state, idiocy excepted, man is still very far above the brutes, and in all his degradations, he never gets down to their level. Whatever may be his situation, he is still man -the most happily organized of all created beings. Whether he is in France, or the Cape of Good Hope, or the Straits of Magellan,—whether he be European or Hottentot, he every where operates upon objects around him, with his natural faculties and qualities. Man was designed to live under the most varied influences. The savage state, barbarism, civilization under a thousand different forms, are in turn his heritage,—without stability, and often without the slightest consistency in the governments, laws, and religions. whose object is to regulate his thoughts and actions. Sometimes master, and sometimes slave, he uses his faculties for his enjoyment, or he is condemned to every species of privation. He must then have received from nature a talent, or disposition, to accommodate himself to all kinds of circumstances, to a *single* concourse of which, without this flexibility of constitution, his happiness must have been entrusted. Every change or variation would have placed him in a state of opposition and misery. It was necessary that he should carry within himself the principle of perfectibility; curiosity, the desire of knowledge, the wish to be taught, must necessarily have inspired him with contempt of ignorance, dislike of defects, and aspirations for

perfection. The savage and the civilized man, nations and individuals, always and every where, tend to the same object. Yet, astonishing as it is, man has been seen for thousands of years, living in families, forming hordes, tribes, and nations -alternately under the yoke of despotism, and on the throne of independence—constantly prospering under the ægis of the arts and sciences, and declining under the influence of ignorance and sloth ; for ages past, researches have been made on the education of the human species, or the civilization of nations, -and how few philosophical writers have had any precise and correct ideas relative to these marvellous operations !

Man has always reasoned upon principles contrary to his natural constitution. They have supposed that man, if abandoned to himself, would be utterly incapable of all self-instruction. Astonished at his own knowledge, and ignorant to the last of his own resources, man, in order to explain the origin of his powers, must have necessarily been obliged to recur to foreign direction and inspiration. The most essential things to his happiness, rules of moral conduct, he could not, consistently with this theory, derive from his own constitution. Hence the supernatural origins of which nations boast; hence the revelations directly from the gods, or through prophets and men, singularly favored by the Divinity. Hence also the fatal error, that there is no conformity nor harmony between moral and religious institutions and human nature ; and that the former, on the contrary, are foes to the most natural desires, passions, and enjoyments of man.

The theory that derives all our ideas and all our knowledge from sensation, and considers the five senses to be the principal sources of all our faculties, has singularly favored the erroneous opinions relative to the primitive condition of the human species and the successive progress of his civilization. Even on this theory, there would still be some ground for believing, that when born with all his organs fully developed, man's

intelligence would, at first, be no less limited; that all his motions, and sensations, and thoughts, would be slow and painful; that he possessed only the simple capacity of improvement, and needed the impressions of external objects upon his senses, in order that this capacity should be exercised, that his faculties and propensities should be formed and developed. There would be some reason to believe, that the moral and intellectual man is entirely the work of art; that our primitive state has no manner of resemblance to that which we subsequently attain; that we as little resemble the man of nature—our original,—as an oak resembles an acorn; and that civilized man must be reckoned among the usurpations, which the factitious qualities and faculties have made over the empire of nature.

I have often shown that all this kind of reasoning is applicable to man, so far only as his knowledge is accidental, relative to outward objects. The whole physiology of the brain proves that the partisans of this theory overlook the inward man, the most fruitful source of human improvement; the only source of the affections, passions, instincts, sentiments, propensities, and talents; the only source, in general, of every fundamental quality and faculty with their common attributes. None of these powers, I repeat it, can be the result of sensations from without. Let them explain to me, why brutes that are surrounded by the same external objects, and receive the same impressions, never acquire the propensities and talents peculiar to man; let them explain to me why each species of animals, though moving in the midst of the same influences, continues to be confined within the specific sphere of its propensities and faculties. And after all, since every philosopher admits that brutes possess innate instincts, propensities and faculties, where do they find their authority for deriving the propensities and faculties of man from the constantly changing play of accident? The uniformity of the moral and intellectual character of all nations, and even of all individuals, though experiencing the most different impres-

sions, is in favor of my assertion, that man also has been originally provided with specific propensities and talents; and consequently, that there can be no factitious quality or faculty, no good or vicious disposition, that can be attributed to barbarism or civilization. Cicero's passion was literary glory, and not more factitious than the ambition of the savage to destroy his enemy.

Another erroneous notion on this subject, is that the only means of obtaining the exact estimate of the effects of civilization, or factitious qualities, would be to observe men, that had never had the slightest communication with their fellow-men. To this objection, I have already replied, when treating of innate dispositions, and I ask these philosophers, if they would consider themselves as having fully studied, and become acquainted with all the qualities and faculties of the elephant, orang-outang, beaver, bee, or ant, after observing a single individual of these animals? Now, it is an essential part of man's destiny, to live in society; all his propensities and talents are calculated for the social life; consequently, his history, like that of every other active being, must be drawn from his conduct in the situation for which he was formed, and not from his appearance in a forced and extraordinary state. A savage caught in the woods, even when not an idiot, is an exception, and cannot be taken for a general example. All experiments and deductions relative to the educability of man, require to be made on entire societies, and not on individuals separately considered. When, under such circumstances, man is found passing from the savage state to that of barbarism, and from barbarism to civilization, we must be convinced that he has not been moving farther and farther from his original nature.

The conclusion of the whole matter is, that the origin of every special quality and faculty belongs to nature, and not to accidental instruction, to the social relations, or to factitious wants. If we consider how much more numerous and intense these same qualities and faculties are in man; how much more developed are

the anterior-inferior middle convolutions in man, than in brutes, we shall easily conceive that the perfectibility of the human species must infinitely surpass that of brutes. The perfectibility of the latter is limited to their wants, which, in consequence of their imperfect organization, are much less numerous and urgent. Except the instinct of propagation, that of love of offspring, and that of self-preservation, or self-defence, almost all their interests are of a temporary nature. The degree of perfectibility that almost any species can attain, is confined to the individual and to a single life. There are but few cases where perfectibility is transmitted from one generation to another, and manifested spontaneously, like other bodily dispositions. The breeds of dogs that have been constantly trained to seize and bring the game, are finally born with these two dispositions, which are also obliterated and lost, if we cease to maintain them for many generations. This proves, no doubt, that some species are capable of a certain degree of perfectibility, which, however, is not at all to be compared to that of ours. Besides the superiority of his organization, man also possesses many external means for increasing the perfectibility, whether of individuals, or of the species. Tradition, language, writing, printing, monuments, social intercourse, leisure, &c., are so many instruments which he uses to extend the sphere of his ideas. On the foundation which the preceding age has left him, he builds for the coming age, and thus arrives at a degree of perfection in the use of his qualities and faculties, which can only result from the long experience and numerous efforts of many generations. Hence the wonderful and unfaltering progress of the arts and sciences. One new fact is added to another, and recorded by the manifold means of transmission.

It is impossible here to enter into the details of the educability of the human species —it would require the whole history of human civilization. I can merely remark, that the degree of perfectibility is always in proportion to the degree of the perfection of the organization.

This is the reason why certain nations remain for thousands of years at the same place on the scale, without our being able to attribute it to the severity of the climate, the influence of despotism, or a gloomy and superstitious religion; while other nations, as soon as they are formed, are advancing by long strides, towards the perfection of which our species is capable. The same difference occurs among different individuals of the same nation and family. There are young people who are interested in nothing, whose attention is fixed on nothing. Nothing can change their habits, and they remain just where circumstances have placed them. Others, on the contrary, seize on external things, with the keenest avidity,—every thing is observed: every event is a motive for instruction; and every specimen of excellence is a model for them to follow.

He who would behold with feelings of admiration, human educability in its fullest extent, has only to follow the progressive development of the understanding in well-organized children, from birth to the age of ten or twelve years. What a prodigious amount of knowledge has the child acquired, at two years of age, when the special, fundamental qualities and faculties are hardly sketched, much less fully developed and perfected.

From all these observations, I conclude that educability, perfectibility, the sense of things or facts, is founded on a primitive organ, both in man and brute, and must be ranked among the number of fundamental faculties. The following remarks will furnish conclusive proof of this assertion.

Seat and external appearance of the Organ of Educability, Perfectibility, of the Sense of Things in Man.

I have already said that, in man, the brain not only rises above the roof of the orbits, but even juts over

them, which renders our forehead higher than that of the brutes, and, in many persons, brings it out in advance of the level of the eyes.

In the human brain, the convolutions, xxi. pl. iv. pl. v. pl. ix. pl. xii. pl. xiii., constitute the organ of educability. The height and prominence of the corresponding part of the forehead, and the individual's capacity for improvement, or perfection of his sense of things, is in proportion to the development of these convolutions. If we will compare the heads engraved in pl. xviii. xix. xx. xxvi. xxviii. xxix. l. liv. fig. 2, which belonged to imbeciles, or to people whose intelligence or perfectibility was very limited, with the heads in pl. xxx. xlviii. lvi., which mark the great perfectibility and intelligence of the persons to which they belonged, we shall form a correct idea of the difference of this organization.

I have often shown, in my lectures, the head of a physician, whose immense variety of knowledge always enabled him to be brilliant in company. He knew something on every subject, but was always adopting every new doctrine. In the immortal Stahl's time, he was a zealous Stahlian; when Peter Frank appeared, he unreservedly professed the principles of this great man; and when the murderous doctrines of Brown were turning every head, he prescribed nothing but opium, wine, snake-root, and musk. Every new medicament immediately became a panacea, and he never failed to insert in the medical journals, accounts of the astonishing effects of his favorite remedies. His readiness in embracing new views, was such, that he never seemed to think of the necessity of subjecting them to the ordeal of experience. The inferior-anterior middle part of the forehead was very large, while the upper frontal part retreated. I have always observed, that persons thus organized, are rather like bees, gleaming from the productions of others, than the source of new inventions themselves. At Berne, we saw the founders of a new religious sect. Observing that one of them had the cerebral part in question, extraordinarily developed, I de-

clared that this man would labor in the department of education, if circumstances permitted. What was our surprise to learn, that this same individual was charged with the duty of disseminating the new doctrine, by teaching. Every day I meet with proofs of the influence of a large development of this organ; and it is almost superfluous to remark, that the direction this faculty receives, is noble or otherwise, according as the other cerebral parts situated against the forehead, are more or less favorably developed.

Pl. lxxx. represents the bust of the Abbé Gaultier, author of a great many elementary works on education. The whole forehead, but particularly the lower-middle part, is very prominent. The organs of benevolence, and love of offspring, are also very well developed, and we know with what zeal and disinterestedness, this estimable man devoted his whole life to the education of children.

Climate seems to have a marked influence on the development of this organ. It is, in fact, very sensibly larger in people that have early arrived at a high degree of civilization, than in those whose progress, though obstructed by no serious impediments, has been slow. But, since there is nothing perfect, those very nations so fond of learning, and so celebrated for intellectual brilliancy, also pass, with wonderful facility, from one fashion and opinion, whether political, religious, or philosophical, to another; while other nations, whose organization is less favorable in respect to educability, are less inclined to abandon the manners, customs, and opinions of their ancestors. A too great and exclusive activity of this organ, subjects both individuals and people to a continual fluctuation of manners and opinions; too little activity, on the other hand, condemns them to the slavery of an immutable, hereditary routine, it matters not whether good or bad. Such is the lot of the Caribs, Hottentots, &c., pl. lxxiv., in which, fig. 1 represents the skull of a young man from St. George's Bay, and fig. 2, the skull of an adult Carib from the Island of St. Vincent's.

In order to explain the great educability of young animals, I have shown that in them the organ is more developed than in adults. It is just so with the human species, as I have already indicated in many parts of this work. At three months old, the infant's forehead begins to be prominent, instead of maintaining its perpendicular outline. Frequently, (and this occurs in children uncommonly well organized,) the frontal part near the median line, advances far before all the rest, so that there is formed an elongated prominence, extending from the root of the nose to the middle of the forehead. In subjects whose organization promises great inductive talent, this prominence unites with the organ immediately above, where the latter is considerably developed. In this case there exists a long protuberance on the median line, extending from the root of the nose to the top of the forehead. Pl. xli. fig. 1, is the forehead of the newborn infant; fig. 2, the rounded, swelling forehead of the infant, when several months old. It is the great development of the inferior-anterior middle convolutions, that gives to children that extraordinary educability; that faculty of receiving and appropriating, in a very little time, a prodigious amount of impressions from the external world.

Thus, numberless observations made upon man, and every species of brutes, leave not the slightest doubt, that the sense of things, educability, perfectibility, is a fundamental faculty, whose organ is placed in the inferior-anterior middle part of the brain and head.

XII. Sense of Locality, Sense of the Relations of Space. (*Ortsinn, Raumsinn.*)

History of the Discovery.

My taste for natural history often led me into the woods, for the purpose of ensnaring birds, or finding their nests. In the latter pursuit I was quite fortunate,

because I had often observed on which side of the tree, whether northern, southern, eastern, &c., each species were accustomed to build their nests. I should have succeeded equally well, in setting my snares, because I was in the habit of ascertaining the district the birds frequented, by their song and movements; but when I went to see what birds had been taken, or to carry away the nest, five or eight days afterwards, it was often impossible for me to find the tree I had marked, or the snares I had set. And yet, after placing my snares, I would always, before quitting the spot, approach it by different paths; I would stick branches into the ground, and cut marks on the trees; but it was all in vain. This obliged me always to take with me one of my school-fellows, who, without the least effort of attention, would go straight to the place where a snare was set, though they might have placed ten or fifteen in a quarter, that was not familiarly known to them. As this youth's talents were not above mediocrity, the facility with which he could always find his way, was so much the more striking, and I often asked him how he contrived to guide himself so accurately; to which he replied by asking in turn, how I always contrived to lose myself every where. In the hope of obtaining some light on this subject, I took a cast of his head, and endeavored to discover persons that were distinguished for the same faculty. The celebrated landscape painter, Schoenberger, told me, that in his travels, he was in the habit of making only a very general sketch of the countries that interested him, and that afterwards, when he wished to make a more complete picture, every tree, every group of bushes, and every stone of any size, presented itself spontaneously to his mind. I took a cast of his head, and placed it by the side of my school-fellow, Scheidler's. At this period I became acquainted with M. Meyer, author of the romance, *Diana-Sore*, whose only pleasure was in wandering about. Sometimes he went from house to house in the country, and at other times attached himself to some man of fortune,

to accompany him in extended travels. He had an astonishing facility in recollecting the different places he had seen. I moulded his head also, and placed the cast by the side of the rest. I then carefully compared them together, and, though very different in many respects, yet I was struck by the singular form, common to them all, of the region directly over the eyes, near the organ of educability. They all had two large prominences which began just outside the root of the nose, and ascended obliquely, upwards and outwards, as far as the middle of the forehead.

From that time, I begun to think that the faculty of recollecting places, might also be a fundamental faculty whose organ was in the region of the brain just mentioned. Upon this hypothesis, all that was said of local memory is perfectly well explained, and we are abundantly furnished with matter for new reflection.

Before proceeding farther, I must remove one difficulty, which will be presented to the mind of the reader unacquainted with anatomy. In some human heads, particularly of males, the external plate is separated from the internal, directly above and on the sides of the root of the nose; and as, in these subjects which may not be very old, the external layer is carried outwards, and not inwards, as in the decrepitude of old age, there are produced two very perceptible prominences in this region. Now, it is these prominences, which the opponents of organology maintain that I take for the external appearance of the organ of the sense of locality. This objection was anticipated and answered, long before they made it. My opponents, and anatomists generally, err in considering the frontal sinuses to exist in all individuals. They are rarely found in women, and are often absent in men, till quite late in life, when the internal plate retires inward, without, however, forming any external prominence. True, these prominences, formed by the frontal sinuses, are situated just where the external mark of the organ of the sense of locality begins; but they have an almost horizontal direction,

most often directly between the eyebrows, and sometimes extend to half the length of the eyebrows. On the contrary, the prominences produced by the organ of the sense of locality, swell out more uniformly, present no inequalities, and extend obliquely upwards and outwards, to the middle of the forehead.

In order to avoid confounding the development of this organ with the projections of the frontal sinus, in the lower animals, a thorough acquaintance is required, with the structure of the head in the different species. In some, such as the bull, buffalo, elephant, bear, and pig, all the adults have large frontal sinuses. In others, as in the human species, they exist in one individual, and not in another. Many varieties of dogs, and often individuals of one of these varieties, appear to have large frontal sinuses, though anatomy shows, that they have none at all, and that their brain is placed directly against the very thin cranial bones.

Natural History of the Sense of Locality in the Lower Animals.

The first idea once developed, we suddenly find ourselves possessed of riches, whose existence we never suspected before. Long before making the observations just related, I had two dogs, one of which, though quite small, often left the house, on some excursion or other, but never failed to return. The other—the same before mentioned, as delighting in killing—always got lost whenever he quitted my sight in the street, and I never could find him, but by having him cried and advertised. Subsequently, I had a little bitch, that never could learn what story of the house I lodged in. When in accompanying me she got lost, she would stand still, and not move a step, and in order to find her, I had only to retrace my steps. I one day observed a little bitch busily engaged in eating on a dirt-heap. It seemed as if the manner, in which I looked at her, inspired

her with confidence, for she followed me without once inclining to return. I gave her to a lady, who, the next day, lost her beyond the barriers of Paris. That, and the following day, it rained in torrents without cessation; on the third, the dog returned to the lady's house, which was in a little out-of-the-way street in the middle of Paris. Although she subsequently became quite attached to her mistress, she still would take a daily ramble into every quarter of the city, even when she had young, but never failed to return at meal-time. One day she was missed about ten leagues from Paris; nevertheless, she reached home before her mistress. A dog was carried in a coach from Vienna to St. Petersburgh, and at the end of six months, he reappeared in Vienna. Another was transported from Vienna to London; he attached himself to a traveller, and embarked with him, but, as soon as they landed, he made his escape, and returned to Vienna. Another dog was sent from Lyons to Marseilles, where he was embarked for Naples, whence he returned by land to Lyons. A game-keeper in my native country, sold a hound to another hunter, who lived more than three hundred leagues off, in the very heart of Hungary. Some time after, they were informed by letter, that the dog had escaped, and, after some months, he arrived at his old master's, wasted with fatigue. Is there one of my readers unacquainted with similar facts? How is this phenomenon to be explained?

They generally have recourse to the exquisite smell of the dog. But, sometimes, dogs return from a very great distance, which have a very dull sense of smell, and how could a dog, by means of his nose, discover the traces of a journey which he made in a carriage, or by water, and that too, after having been shut up for several months? Would not the rains, snows and winds necessarily destroy all emanations? Who will venture to affirm, that a dog can discern the effluvia of his master, several hundreds of leagues distant. Besides, it is a well-attested fact, that, in these cases, a dog does not

return home by the straightest road, but takes circuitous paths, and frequently one very different from that by which he was carried away. Some naturalists, considering these circumstances inexplicable by the sense of smell, prefer to admit an unknown sense, which they call the *sixth sense*.

It is impossible, in fact, to explain the phenomena by means of the sense of smell. Nobody considers pigeons to have a very exquisite smell; yet it is universally known, that if we carry them in a bag across the fields, to a considerable distance, into a country with which they are entirely unacquainted, and let them loose, they will return directly to their dove-cote, and by the shortest route. M. M. Van Heynsbergen and Van Breda communicated to me the following fact: "Two pigeons, a male and female, of the variety called in French *pirouetteurs*, which have a very rapid flight, were sent from Vlaardinge (a little town in Holland, on the Meuse,) to Iceland. The ship had nearly reached her destined port, when the male escaped, and immediately rose so high in the air, that the eye could scarcely follow him. The captain of the vessel, fearing he would not return, let the female loose, in the hope that she might attract and bring him back; but she, after fluttering a few moments among the rigging, rose in the same manner, and joined the male. After amusing themselves some time with flitting about in the air, they directed their flight by the shortest course, towards Holland, with so much accuracy, as the captain himself, to use his own expression, could have gone by following the compass. It appeared from the date in the log-book, that the birds arrived the third day after, at Vlaardinge, at the house from which they were carried away. They were so fatigued and exhausted, that they fell from the roof into the yard, after having been called in vain, a long time by their master, who threw them some food, and during the first week, they never went out at all.

The papers lately gave an account of a bet, relative

to some pigeons that were carried to a great distance, from Bordeaux or Toulouse, to be liberated at an appointed place.

Baron Haak, carried from his country-seat near Manheim, a male and female pigeon, a distance of eighty leagues, into the Voralberg. They were set at liberty, and both returned home.

Facts of this kind, gave rise to the practice now in use, of employing pigeons to carry letters.

Cats have been carried ten or twelve leagues in a bag, and still have returned. At Vienna, I saw an Iceland falcon, which had not forgotten its country after a captivity of several years. When he was unhooded for the chase, he rose perpendicularly from his perch, till he was out of sight. They followed him with spy-glasses, and observed him, after describing some circles in the air, directing his flight straight for the north. Joseph II. called the attention of the spectators, of whom I was one, to the direction of his flight. It was the emperor's amusement to let off after this falcon, two lannerets, which would rise above him, and bring him down. When in a country, abounding with honey, we carry off bees to a distance of several leagues, they rise to a considerable height, describe a circle in the air, and though they may belong to a hundred different hives, each one finds his own.

In O'Meara's Napoleon in Exile, (vol. I. p. 155,) we find Napoleon uttering the following words: "There is a link between animals and the Deity. Man is merely a more perfect animal than the rest. He reasons better. But how do we know, that animals have not a language of their own? My opinion is, that it is presumption in us to say no, because we do not understand them. A horse has memory, knowledge, and love. He knows his master from the servants, though the latter are more constantly with him. I had a horse myself, who knew me from any other person, and, by capering and proudly marching with his head erect, when I was on his back, manifested his knowledge that he bore a person supe-

rior to the others, by whom he was surrounded. Neither would he allow any other person to mount him, except one groom, who constantly took care of him, and when rode by him, his motions were far different, and such as seemed to say, that he bore an inferior. When I lost my way, I was accustomed to throw the reins down his neck, and he always discovered it, in places where I, with all my observation and boasted superior knowledge, could not. Who can deny the sagacity of dogs? There is a link between all animals. Plants are so many animals which eat and drink; and there are gradations up to man, who is only the most perfect of them all. The same spirit animates them all in a greater or less degree."

These cases taken from the brutes, strongly prove, that the expression, *memory of places*, is far from designating the full extent of the sphere of activity, filled by the sense of locality, or sense of the relations of space; for, dogs, pigeons, falcons, &c., which regain their old home or country, never return by the same route by which they left it. The sense of locality is rather the faculty of being correctly guided in places—of finding the course we wish to pursue, in spite of by-paths, woods, rivers, mountains, &c.; it is the faculty of ascertaining the relations of space, and therefore, I use the expressions, sense of locality, sense of the relations of space, in preference to that of *memory of places*.

Such a sense is indispensably necessary to brutes, which must be able to find their home, den, nest, kennel, or young. What could they do without it? How could we conceive, without this sense of locality, many of the most remarkable phenomena in the animal world, such, for instance, as the migrations of animals, which, without dispute, are an important point in the natural history of the sense of locality.

On the Migrations of Animals.

Why, at a certain season of the year, do some species migrate into other climates, and, the next season, return to the country which they left? and why, on the contrary, do some species not migrate at all?

Charles George Leroy's reply to this question, though incorrect, is, however, more specious than those hitherto given by naturalists. These are his words: "Nothing more resembles the occult qualities of the ancients, than the principles to which Reaumur attributes the actions of brutes. He says, for instance, that a bird of passage has an inward perception of the time when it is necessary to change its abode, and feels an attraction towards a certain place. It must be admitted, that an attraction felt by a being towards a certain region of which it has no knowledge whatever, would be a very extraordinary thing, and that the perception of a being that cannot perceive, would be still more so. It is difficult, no doubt, to ascertain precisely, how this habit of migrating, was originally established. There is reason to believe, that the disagreeable sensations, produced by a climate unsuited to the animal's constitution, gradually gave rise to it: an age, perhaps, may have been necessary to establish the perfect regularity of these migrations. But, at present, it is certain that the knowledge of the necessity of the passage, and of the time for starting, is the result of instruction, continued from generation to generation. They that want this instruction, do not migrate; and it is clearly visible, that the young birds are led by those which derive knowledge and authority from age and experience. Take the swallows, for instance, which every one may observe. Their departure is always preceded by assemblages, whose frequency and duration leave no doubt, that their object is, to prepare for a journey, undertaken by beings that are able to feel and understand, and can join in a common plan. The rapid and diversified chattering that prevails at these assemblages,

clearly indicates a communication of precepts, necessary for the numerous progeny of the season, which require some preliminary, and often-repeated instruction, to be prepared for this great event. Their frequent trials by flying in flocks, are no less indispensable, and they are always followed by a repetition of instructions, that resound from our roofs and chimnies. Such a project would be indicated to us in a similar manner, in an assembly of men whose language we did not understand. But the frequency of the phenomenon is a better proof than this analogy, that these migrations are not the result of a blind, automatical disposition. If at the time appointed for the passage—a time, which the season does not allow them to postpone without compromising the safety of the whole species—even a pretty large number are found too young to follow the flock, they are abandoned, and remain in the country. But let these live to become adults, *the attraction towards a certain region* is not felt, or at least is not sufficient to guide them, and they finally perish of hunger, victims of their ignorance and that tardy birth which has deprived them of the means of following their parents. If, as is pretended, the actions of animals are performed by a blind power of nature, none of these inconveniences would happen. There would be no tardy births; every single action would be done at a specific moment, as well-regulated clocks all strike at the same instant; and a considerable portion of the species would not be sacrificed to the voluntary errors of those to whom they owe their existence."*

If in place of the *occult qualities of the ancients*, we substitute *the organ of locality, of the relations of space, of the relations of place*, Leroy's whole objection will apply to the organ of locality; it is my business, therefore, to refute it.

Leroy has completely forgotten, that migrating ani-

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* Op. cit. p. 215, 218.

mals, in the spring, return to the country which they left in the autumn. Now, what forces them to quit a climate where they are well off during our winter, and where they might do well. the whole year? If it were true, that the *disagreeable sensations produced by a climate unsuited to the animal's constitution* could have given rise to migration, this circumstance would, at most, only induce them to fly from a climate which incommodes them, and seek a milder one, but not by any means to return, not only to the same country, but to the very spot which they left, which, however, is the case. Every body knows, that the same pair of nightingales return to the same bush; the same pair of swallows, to the eaves of the same roof; and the same pair of storks, to the same chimney.

Can a naturalist think that the emigrations of animals would be trusted to trials, whose results are uncertain? Would not the species have perished during the ages, that were required to be instructed in these trials? All birds of passage do not assemble in flocks like the swallows. In many species, the individuals fly alone during the whole passage; such as the red-breast, wren, (*motacilla troglodytes*,) the three-toed wood-pecker, (*picus tridactylus*,) the falcon, &c., at least they traverse a considerable space, before assembling in flocks. The young and females of these species, ordinarily depart from eight to fifteen days before the males; in the spring, the latter return, nearly the same number of days before the females. This instruction, therefore, which, according to Leroy, the old ones give to the young, is all a chimera. I exposed some young cuckoos in my garden, that they might be fed by other birds. While the other cuckoos remained in the country, the two young ones which I had reared, did not quit the garden, but disappeared at the period of the migration of their species, though they had had no communication with any of the old ones.

I believe that the cases, where a large number of individuals stay behind and thus perish, are rare; for, there

is a relation between the time of hatching and that of migration. The yellow mocking-bird departs at the end of June, and returns towards the middle of May. The nightingale and cuckoo depart later, and return during the first weeks of April. The swallow starts still later, and returns still sooner. If there are any feeble, ill-formed, or tardy ones among them, it is true, they perish; but it is only a confirmatory proof, that the migratory instinct is indispensable to the preservation of these species.

If it were the inclemency of the season, which inspires such animals with the disposition to migrate, why does not the severest cold, when our sparrows, partridges, and ravens freeze in the air, determine them to migrate into more southern countries? Who tells the *motacilla troglodytes*, and the *motacilla regulus*, the smallest of our birds, that they can endure the severest winters, while the stork and the vulture are forced to seek another sky.

It is said, too, that want of nourishment forces birds to migrate; but, if this were the case, what should induce them in the spring to return from a country where they would find an abundance of food during the whole year. Besides, birds migrate long before food becomes scarce; and they are frequently obliged, particularly if a few cold days supervene, to move to a considerable distance to obtain nourishment. You may supply a nightingale most abundantly with food, yet still you may observe him, at the period when his species migrate, fluttering about in his cage with every sign of uneasiness, particularly when the morn shines brightly; for it is then that nightingales are most fond of travelling. In certain countries, the field-lark, for example, is a bird of passage; in others, it does not migrate, but assembles in flocks during winter. Now, does not this fact furnish an objection against organology? If birds migrate in consequence of the activity of an organ, ought not their conduct to be the same in all countries? External circumstances, without doubt, exert a marked influence on the development and excitement of an organ. Thus,

birds reared in warm rooms, begin to sing earlier than those that live in the colder open air. Hens kept in very warm coops, never cease to lay, except during moulting. But heat does not create ovaries, nor songs. So, too, external circumstances are incapable of producing the propensity to migrate, unless the propensity be already determined by a proper organ. This is proved by the cases of the partridge and sparrow, just mentioned.

We must, therefore, certainly admit in the brutes a primitive sense and organ of locality, and that the activity of this sense varies, not only in different species, but in different individuals of the same species.

External appearance of the organ of Locality in Brutes.

At first sight, this organ does not appear to be situated in the same place in brutes as it is in man, and it even seems to be very differently situated in the different species. This anomaly, which is only apparent, arises, when one or more other organs, such as that of colors, tones, numbers, as in man and the singing birds, are found outside of the organ of locality, which, in consequence, is carried nearer to, or farther from, the median line. But when these faculties and their corresponding organs are wanting, the organ of locality is situated altogether on the side,—a convincing proof that the brains of the lower animals, are only fragments of the human brain, and that both are alike composed of many organs. In the smaller species of migrating birds, it is very difficult to distinguish the organ of the sense of locality. Even in the larger kinds, it may be easily confounded with the organ of the love of offspring. In the woodcock, and in some species of migrating falcons, the organ of locality appears precisely as it does in man, with this difference, that it is situated a little nearer the sides of

the head, and almost touches the posterior margin of the orbits.

In regard to the mammifera, we must never forget to inquire, whether the animal is of a migrating species, or is only distinguished from other individuals of its species, by a little stronger sense of locality. Squirrels, which, generally, have a pretty active sense of locality, sometimes emigrate in very numerous flocks to distant countries; but ordinarily they quit the woods in winter, when the cold becomes unpleasant, and establish themselves in our gardens. When a boy, I always was in the habit of keeping some; and I observed that, in the day-time, they would climb over the walls and the houses, to get into the neighboring gardens. In the evening, they would hastily return to the house to pass the night, in a box of cotton. We may observe, in their crania, two fine oval prominences, directly behind and above the great bulb of the olfactory nerve. The squirrel has no frontal sinus. The lemmings, at certain times, collect together in flocks of incalculable numbers at the approach of autumn. They leave the mountains in order of battle, pour into the plains, and continue their march in a straight line, and are never turned from it by perils or obstacles of any description. Would this be possible, asks Goeze, if these creatures were not impelled by a particular instinct? if they were not endowed with some intellectual faculties?* On examining the lemming's head, we cannot help being struck with the internal cause of this propensity. Its head, in front, and directly behind the eyes, is very broad, swelled out, and not contracting to a point before, like most animals. This is the reason why the propensity to travel is absolutely irresistible in these animals; they are arrested neither by fire, nor water, and will pass over brooks, rivers, marshes, and lakes, though they perish by thousands in

* Europaeische Fauna oder Naturgeschichte der europaeischen Thiere (European Fauna, or Natural History of the Animals of Europe.) Vol. II. p. 268.

doing it. They that survive the expedition, return the following spring, and again establish themselves in their Alps.

As the sense of locality differs so remarkably in different dogs, we may make a very instructive collection of the skulls of these animals. All of them in my possession concur in confirming my discovery, relative to the organ of locality. The skull of the bitch that never could recollect in which story of the house I lodged, is retracted in front and on the sides, pl. lxxxi. fig. 1. That of the bitch, which, though only four months old, could find its mistress's house, after being lost beyond the outer barrier, and would run all over the city without losing her way, is very broad and prominent in the same region, on the sides, as well as towards the top of the head. See the same plate, fig. 2. During the life of the animal, I was in doubt whether this prominence was not formed by the frontal sinus; but, on examining the skull, I saw that the whole bony box was filled by the brain, and that, in fact, there was no sinus. In all the skulls of dogs, the breadth of this region is in proportion to the activity of their sense of locality. After all these proofs, which are confirmed in every species of animals and in every individual, endowed with a very active sense of locality, can we still doubt that this sense is a fundamental faculty, whose organ is situated in the region, which, after numerous observations, I have assigned to it?

Further accounts of the organ of the sense of Locality, and of its sphere of activity, in Man.

In man, the faculty of judging of the relations of space extends to other objects also. It gives him the power of finding his way; it gives him what is called the *coup-d'œil;* it enables him to judge of the face of the country—to determine the position of armies, and to regulate their marches; it enables the officer to choose

the shortest route, or leads him, by secret paths, to the point he wishes to occupy. When the commander-in-chief is deficient in the sense of locality, he needs an aid-de-camp that is eminently endowed with it. Thus, Villars, it is said, supplied Turenne's deficiency in this quality. I have always found the organ of the sense of locality very large in military men who are said to excel in the faculty of finding their way; consequently, this faculty plays a considerable part in the operations of war. Without this organ there would be no such thing as geography and topography. All who are distinguished for making accurate charts, are capacitated for this work, by the activity of this faculty: by virtue of which, also, the mind of man traverses the infinity of space.

Endowed with another faculty still, (the sense of mathematics,) the astronomer calculates the distances and movements of the stars. I have seen no great astronomers in whom this organ was not very well developed. Look at the heads of Kepler, Galileo, Newton, Tycho Brahe, Descartes, Pascal, Hell, Lalande, Laplace, Burgs, Bessel, Bode, Olbers, Zach. The sense of locality, combined with that of arts and colors, produces the landscape-painter. Frequently, when I am asked in company, my opinion of an artist, I have determined, by means of organology, the department of painting which he would choose in preference to others. In such cases, most people have thought that there was some trick on my part, and that I knew beforehand the talent, which I had the art of divining. At Munster, where I was asked my opinion of an artist, I replied that his natural vocation was to be a landscape-painter. His organs of locality and color were particularly developed. In fact, he was a portrait-painter, and they thought I was deceived; but M. Ringklage declared that he painted portraits only for a living, and that, from childhood, he had had a decided taste for landscape.

Examine the portraits of Claude Lorrain, Vernet, Hackert, Breugel, pl. lxxxii. fig. 1.

I have been frequently asked, what is the organ of

the passion for play. I have looked for this organ in many inveterate professional gamblers, but have never been able to discover any thing constant. The reason is, that different games, to be played well, require different talents. Hence we may understand why it is, that persons who excel in all games at cards, are never, though using all possible application, more than tolerable players of draughts, and chess; and why, on the contrary, the best chess-players, are often poor card-players. Having had an opportunity of seeing many of the most celebrated chess-players, I have observed that they all had the sense of locality very large; and I conceive that the great talent of these players consists in the power of forming vividly and accurately, in their mind, a great number of possible positions of the pieces. But this is not what is required in games with cards, which rather require a talent of rapid combination.

In the history of the discovery of this organ, I have indicated its appearance on the external surface of the head. In the brain it is formed by the convolutions marked xvii. pl. iv. v. ix. xiii.

It frequently happens that this organ is very well developed, where there is no frontal sinus. In these cases, it is much less apparent than when accompanied by the swelling produced by this sinus, but its true direction is then much better indicated. When these same individuals have a very thick skin, it is even difficult to be sure of its presence by sight alone; but it may always be discovered by the touch.

On Love of Travelling.

When the sense of locality is very active, there results a propensity to change place, a taste for travelling. Idle and uneducated people are easily inclined to vagabond habits. Servants thus organized, do not long remain in the service of any particular person. People, who with the sense of locality, combine some other talent, ordina-

rily seek their fortunes in foreign countries. The painter traverses various countries, in order to obtain subjects for his landscapes; the devotee becomes a missionary; the naturalist, neglecting objects that have been around him from his birth, goes and explores another hemisphere; the young physician joins the train of some travelling lord, &c. We may say, without seeing them, that such persons have the organ of the sense of locality large; they are impelled by an inward force, whose existence even, they do not suspect.

A young girl had always had a great desire to travel. She suffered herself to be carried away from her paternal abode by an officer. In consequence of chagrin and remorse, she fell sick. I attended her, and she called my attention to two large prominences which her troubles has caused to arise on her forehead. They were thought by her to be the effect of heavenly wrath, but they were, in fact, the organ of locality which she had never before observed. I saw one day in the street at Vienna, an elderly woman, and was struck by the enormous development this organ had acquired. I entered into conversation with her, and before I had time to ask her country, she told me with the greatest earnestness, that she had fled from Munich to get the place of cook in Vienna, with the design of earning three thousand florins, so that she might spend her life in travelling like a lady. In the mean time, she changed her master every month, because it seemed to her impossible to remain long in the same house. At Torgaw, I was struck with the large size of the organ of locality in a man who was blind from birth, and requested those with me to attend to our conversation. As soon as I asked him what was his favorite occupation, he swore to me that he liked nothing better, than to hear people talk about foreign countries, and that he was always dreaming about them in his sleep. In the biography of Captain Cook, it is expressly remarked, that this navigator had these frontal bumps very prominent; still the biographer is disinclined to recognize the truth of my doc-

trine. The portraits of Columbus, pl. lxxx. fig. 2, and of Vasco de Gama, whose name is immortalized by his discovery of the passage to East-India by the Cape of Good Hope, presents the same conformation. Regnard had a strong desire to travel, from his childhood. The following inscription was made for him.

> Gallia nos genuit; vidit nos Africa; Gangem
> Hausimus, Europamque oculis lustravimus omnem;
> Casibus et variis acti terraque marique,
> Hic tandem stetimus, nobis ubi defuit orbis.*

A very convincing proof is furnished by M. Jaubert, Master of Requests, and Professor of Oriental languages in the Royal Library. This *savant* was always passionately fond of travelling, and was always employed by the government on important missions in Turkey, Persia, &c. His organ of locality was even more prominent than Breugel's, the landscape painter. I might here cite a long list of travellers, dead, as well as living, in whom the organ of locality was very large; such as M. M. Choris, Gaimard, Freycinet, &c.

A London physician, known by the name of Memory Thomson, was an astonishing example of local memory. Within twenty-four hours and at two sittings, he made a correct plan of the whole parish of St. James, with many parts belonging to the parishes of Mary-le-Bone, St. Anne, and St. Martin. This plan contained all the places, streets, courts, passages, markets, churches, chapels, public edifices, stables, all the corners of houses, and a great many other objects, such as pumps, railings, trees, and sheds, besides an exact plan of Carlton House, and the palace of St. James. He performed all this without the aid of plan, compass, book, or any other data whatever. He also drew, from memory, an exact plan of the parish of St. Andrews, and he declared that he could

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* "France gave us birth; Africa has seen us; we have drank from the Ganges, and beheld all Europe. After various misfortunes, we stand here at last, where the very universe ends."

make some as good, of St. Giles in the Fields, of St. Paul, of Covent-Garden, of St. Clemens, and New-church. Name any building whatever in some large street, and he tells in a moment what business is carried on in it, and the shop, with every thing relative to its situation, whether it is in the right, left, middle, or at its extremities.—In going over a large house, completely furnished, he would give a verbal account of it, and subsequently a written description without a single omission. On the other hand, a conversation which he may have heard between a couple of men, thrice repeated, would be entirely new to him in a few days.

But the opportunity of verifying the real cause of the taste for travelling, is so common, that it will be sufficient for me to conclude, by mentioning that learned and celebrated naturalist, Baron Humboldt.

Sense of Locality in Insanity and Idiocy.

Frequently, when the organ is exceedingly active, there results a strong passion that may degenerate into insanity. Avicenna has already described this partial insanity under the name of *cutubut, wandering melancholy.* Dr. Beutel communicated to us the history of the Abbe Dabrowki, of Prague, as celebrated for the powers of his mind as for his profound knowledge. This man had an invincible passion for travelling, which was frequently manifested by an urgent and instantaneous necessity of changing his abode. These fits are so violent, that they have the character of real disease. Sometimes he wakes up in the night, and cannot help getting up and running across the fields. Once he had a fit when the weather was very cold; yet in spite of all that his better reason could do, he rose, dressed in the dark, and instantly set off; and he had gone nearly two leagues, with the snow up to his knees, before he could persuade himself to return and go to bed. Dr. Beutel, who at this time had no idea of organology, told me that

the only thing that had struck him in the appearance of this man, *was two enormous prominences on the forehead, directly over the eyebrows.*

Fodéré relates a case of true alienation of this organ, taken from a Memoir of M. Savary, entitled, *Faits pour servir à l'histoire des lesions des facultes intellectuelles.* (Facts, to serve as materials for a history of disorders of the intellectual faculties.) "A carpenter, forty-seven years old, with every appearance of good health, was assailed by a crowd of strange and incoherent ideas. He often imagined himself fluttering in the air, or traversing smiling fields, apartments, old chateaus, woods, and gardens, which he had seen in his infancy. Sometimes he seemed to be walking in public courts, places, and other spots that were known to him. While at work, the moment he was going to strike his axe at a given place, an idea would pass through his head, made him lose sight of his object, and he would strike somewhere else. He once rose at midnight to go to Versailles, and found himself there, without being sensible of having made this journey.

"None of these hallucinations prevent the patient from reasoning correctly. He is astonished, and laughs at himself, for all these fantastic visions, but still is unable to withdraw himself from their influence."

This faculty is sometimes quite active even in idiocy of various grades.

At Dresden, M. Bloede told us of a man who was always very uneasy, whenever he was obliged to remain more than one or two days in the same place. He spends the whole year in travelling over the greatest part of Saxony, Lusatia, and Silesia. He has a fixed station for every day; he visits all the landlords, to whom he carries the compliments and salutations of their friends and parents, and, with his eyes closed, and his body fixed, he relates the minutest details of his journey with astonishing volubility. Bloede assures us, that this man has also the two prominences of the sense of locality large and very marked. Now, after all the proofs I

have produced, how can it be any longer doubted, that the sense of locality is a fundamental faculty, exercised by the cerebral part that I have assigned to it?

"Our two authors," says Demangeon, "attribute to the organ of locality, the taste for travelling, the presentiment and discovery of worlds, astronomy and geography, the taste for landscape painting, the periodical migration of certain animals, as well as the instinct which enables each animal to find its home. This organ seems to be overloaded, and if we have before seen many organs for little things, we have here an instance of the reverse. They explain these differences by the different degrees of the size of this organ, which, however, does not remove the reasonable suspicion, that they may also be owing to other organs, such as those of habitation and height; and that there may even be a particular one for astronomy and chronology, for seasons and atmospherical changes, which birds announce not only by periodical migrations, but also by flying high or low. In this way, rabbits and other animals change their customary hours of going out and feeding at the appearance of approaching rain."

The only reasonable idea in this objection, is, that the instinct of choosing a habitation, may be attributed to the sense of locality. But it is not enough to reason; reasoning must be supported by observation, and must destroy the facts mentioned in the account of the instinct which impels animals to seek higher places.

In a former objection, M. Demangeon would derive from the single instinct of self-preservation, fear, courage, circumspection, prudence, love of offspring, the desire of immortalizing one's name, and consequently the most different propensities and talents. Now, he finds that the organ of the sense of the relations of space is overloaded, because I derive from it the taste for travelling, the presentiment and the discovery of worlds, astronomy and geography, the taste for landscape painting, the periodical emigrating of certain animals, and the instinct which enables them to find their home—things, all per-

fectly analogous! If in the rest of his objection, M.r Demangeon is tempted to put the faculty of knowing the relations of space on a footing with the sensibility of a corn, or the stump of an amputated limb; with the electricity of the feathers of birds, or the hair of other animals, which gives the presentiment of rain;—I leave it to him to justify his course.

Sense of Order.

The sense of locality, making known the relations of space, I have been inclined to think that it might also be the sense of taste, of symmetry, and of order. It is certain that some persons are destitute of all spirit of order; while others, from their infancy, are pained at the sight of the slightest irregularity in the furniture, tables, &c. This sentiment sometimes amounts to a passion, even in idiots. I have already mentioned the soi-disant savage of Aveyron, in the Institution for the Deaf and Dumb at Paris, and I know many similar cases. On the other hand, I know individuals, whose organ of the sense of locality is developed to such a degree, that they spend their whole life in running about, and who still are scarcely conscious of the most hideous disorder in their household; so that I suspect the spirit of order must be referred to a particular fundamental faculty, and consequently to a particular organ.

Dr. Spurzheim speaks of a girl he saw at Edinburgh, idiotic in many respects, but in whom the love of order was so active, that she avoided her brother's chamber, on account of the disorder that reigned within it. He thinks it probable, that the organ of order is on the external part of the superciliary arch, between those of color and numeration. Although he has a great number of observations in its favor, he thinks it necessary to multiply experiments. But these experiments are difficult to make, because, among the organs situated in the inferior-anterior region of the head, there are some very

small ones, in the number of which is apparently that of order. For my own part, I have not succeeded in collecting a sufficient number of invariable facts, to justify any opinion whatever, on the seat of this organ.

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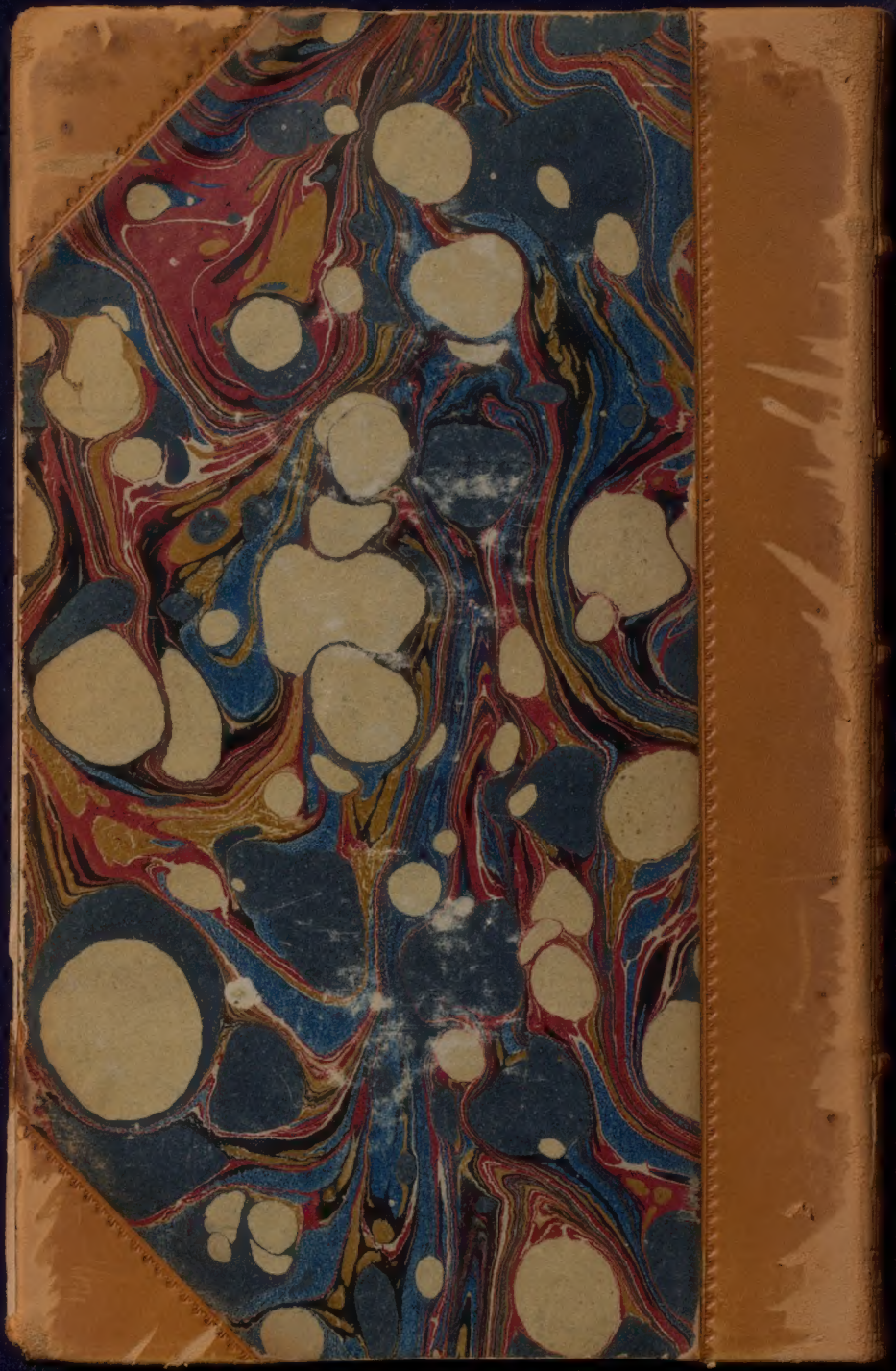
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